

## FEATURES

- Various high power inductors are superior to be high saturation
- Suitable for surface mounting equipment
- Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI)
- Takes up less PCB real estate and save more power
- Magnetic-resin shielded construction reduces buzz noise to ultra-low levels
- Operating Temperature: -40°C ~ +125°C



## APPLICATIONS

- Smart phone, smart TV, set top box, notebook
- Car navigation systems, telecomm basestations
- VR, AR
- LED lighting
- RoHS, Halogen Free and REACH Compliance

## PART NUMBERING

|       |             |                 |              |                    |                      |           |              |             |
|-------|-------------|-----------------|--------------|--------------------|----------------------|-----------|--------------|-------------|
| APS   | WPA         | 4018            | S            | 4R7                | M                    | T         | F            | □□          |
| ①     | ②           | ③               | ④            | ⑤                  | ⑥                    | ⑦         | ⑧            | ⑨           |
| Grade | Series Name | Dimensions Code | Feature Type | Nominal inductance | Inductance tolerance | Packaging | HSF Products | Design Code |

| ① Grade |            |
|---------|------------|
| APS     | Grade Code |

| ② Series Name |                               |
|---------------|-------------------------------|
| WPA           | Wire Wound SMD Power Inductor |

| ③ Dimensions Code |                         |
|-------------------|-------------------------|
| Code              | Dimensions (L×W×H) [mm] |
| 252010            | 2.5×2.0×1.0             |
| 252012            | 2.5×2.0×1.2             |
| 3010              | 3.0×3.0×1.0             |
| 3012              | 3.0×3.0×1.2             |
| 3015              | 3.0×3.0×1.5             |
| 4010              | 4.0×4.0×1.0             |
| 4012              | 4.0×4.0×1.2             |
| 4018              | 4.0×4.0×1.8             |
| 4020              | 4.0×4.0×2.0             |
| 4026              | 4.0×4.0×2.6             |
| 4030              | 4.0×4.0×3.0             |
| 5012              | 5.0×5.0×1.2             |
| 5020              | 5.0×5.0×2.0             |
| 5040              | 5.0×5.0×4.0             |
| 5045              | 5.0×5.0×4.5             |
| 6020              | 6.0×6.0×2.0             |
| 6028              | 6.0×6.0×2.8             |
| 6040              | 6.0×6.0×4.0             |
| 6045              | 6.0×6.0×4.5             |
| 8040              | 8.0×8.0×4.0             |
| 8060              | 8.0×8.0×6.0             |
| 8065              | 8.0×8.0×6.5             |

| ④ Feature Type |          |
|----------------|----------|
| S              | Standard |

| ⑤ Nominal inductance |                         |
|----------------------|-------------------------|
| Code (example)       | Nominal inductance [μH] |
| 2R2                  | 2.2                     |
| 100                  | 10                      |
| 101                  | 100                     |

| ⑦ Packaging |        |
|-------------|--------|
|             | Taping |

| ⑧ HSF Products |                                   |
|----------------|-----------------------------------|
| F              | Hazardous Substance Free Products |

| ⑥ Inductance tolerance |                      |
|------------------------|----------------------|
| Code (example)         | Inductance tolerance |
| K                      | ±10%                 |
| M                      | ±20%                 |
| N                      | ±30%                 |

| ⑨ Design Code |                           |
|---------------|---------------------------|
| □□            | Standard product is blank |

Dimensions & Recommended Land Pattern

Figure 1



Figure 2



Figure 3



Recommended Land Pattern



Unit: mm

| Dimensions   |         |         |         |          |         |          |          | Recommended Land Pattern |        |        |
|--------------|---------|---------|---------|----------|---------|----------|----------|--------------------------|--------|--------|
| Series       | Shape   | A       | B       | C        | D       | E        | F        | a Typ.                   | b Typ. | c Typ. |
| APSWPA252010 | Figure1 | 2.5±0.1 | 2.0±0.1 | 1.0 Max. | 2.0±0.2 | 0.80±0.2 | 0.80±0.2 | 0.8                      | 0.85   | 2      |
| APSWPA252012 | Figure1 | 2.5±0.1 | 2.0±0.1 | 1.2 Max. | 2.0±0.2 | 0.80±0.2 | 0.80±0.2 | 0.8                      | 0.85   | 2      |
| APSWPA3010   | Figure2 | 3.0±0.2 | 3.0±0.2 | 1.0 Max. | 2.5±0.2 | 0.75±0.2 | 1.5±0.2  | 1.5                      | 0.8    | 2.7    |
| APSWPA3012   | Figure2 | 3.0±0.2 | 3.0±0.2 | 1.2 Max. | 2.5±0.2 | 0.75±0.2 | 1.5±0.2  | 1.5                      | 0.8    | 2.7    |
| APSWPA3015   | Figure2 | 3.0±0.2 | 3.0±0.2 | 1.5 Max. | 2.5±0.2 | 0.75±0.2 | 1.5±0.2  | 1.5                      | 0.8    | 2.7    |
| APSWPA4010   | Figure2 | 4.0±0.2 | 4.0±0.2 | 1.0 Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2  | 1.9                      | 1.1    | 3.7    |
| APSWPA4012   | Figure2 | 4.0±0.2 | 4.0±0.2 | 1.2 Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2  | 1.9                      | 1.1    | 3.7    |
| APSWPA4018   | Figure2 | 4.0±0.2 | 4.0±0.2 | 1.8 Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2  | 1.9                      | 1.1    | 3.7    |
| APSWPA4020   | Figure2 | 4.0±0.2 | 4.0±0.2 | 2.0 Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2  | 1.9                      | 1.1    | 3.7    |
| APSWPA4026   | Figure3 | 4.0±0.2 | 4.0±0.2 | 2.6 Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2  | 1.9                      | 1.1    | 3.7    |
| APSWPA4030   | Figure2 | 4.0±0.2 | 4.0±0.2 | 3.0 Max. | 3.3±0.2 | 0.95±0.2 | 2.1±0.2  | 1.9                      | 1.1    | 3.7    |
| APSWPA5012   | Figure3 | 5.0±0.2 | 5.0±0.2 | 1.2 Max. | 4.0±0.2 | 1.25±0.2 | 2.5±0.2  | 2.3                      | 1.4    | 4.2    |
| APSWPA5020   | Figure3 | 5.0±0.2 | 5.0±0.2 | 2.0 Max. | 4.0±0.2 | 1.25±0.2 | 2.5±0.2  | 2.3                      | 1.4    | 4.2    |
| APSWPA5040   | Figure3 | 5.0±0.2 | 5.0±0.2 | 4.0 Max. | 4.0±0.2 | 1.25±0.2 | 2.5±0.2  | 2.3                      | 1.4    | 4.2    |
| APSWPA5045   | Figure3 | 5.0±0.2 | 5.0±0.2 | 4.5 Max. | 4.0±0.2 | 1.30±0.2 | 2.5±0.2  | 2.3                      | 1.4    | 4.2    |
| APSWPA6020   | Figure2 | 6.0±0.3 | 6.0±0.3 | 2.0 Max. | 4.9±0.3 | 1.55±0.3 | 2.9±0.3  | 2.8                      | 1.7    | 5.7    |
| APSWPA6028   | Figure2 | 6.0±0.3 | 6.0±0.3 | 2.8 Max. | 4.9±0.3 | 1.55±0.3 | 2.9±0.3  | 2.8                      | 1.7    | 5.7    |
| APSWPA6040   | Figure2 | 6.0±0.3 | 6.0±0.3 | 4.0 Max. | 4.9±0.3 | 1.55±0.3 | 2.9±0.3  | 2.8                      | 1.7    | 5.7    |
| APSWPA6045   | Figure2 | 6.0±0.3 | 6.0±0.3 | 4.5 Max. | 4.9±0.3 | 1.55±0.3 | 2.9±0.3  | 2.8                      | 1.7    | 5.7    |
| APSWPA8040   | Figure2 | 8.0±0.3 | 8.0±0.3 | 4.2 Max. | 6.3±0.3 | 2.00±0.3 | 4.0±0.3  | 3.8                      | 2.2    | 7.5    |
| APSWPA8065   | Figure3 | 8.0±0.3 | 8.0±0.3 | 6.5 Max. | 6.3±0.3 | 2.00±0.3 | 4.0±0.3  | 3.8                      | 2.2    | 7.5    |

- All products are printed with Marking except the 252010, 252012, 3010, 3012 and 3015.
- The 3010, 3012 and 3015 with Marking can be provided upon customer's request. Please contact your local sales.

## Electrical Characteristics

## ● APSWPA252010 Series

| Part Number         | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|---------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                     | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units               | µH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol              | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA252010SR47□TF | 0.47       | 2.35                | 2.56 | 2.50               | 3.35 | 206                     | 0.056         | N/M                  |
| APSWPA252010SR56□TF | 0.56       | 2.00                | 2.18 | 2.90               | 3.20 | 160                     | 0.072         | N/M                  |
| APSWPA252010SR68□TF | 0.68       | 2.00                | 2.18 | 2.20               | 2.75 | 129                     | 0.074         | N/M                  |
| APSWPA252010S1R0□TF | 1          | 1.65                | 1.80 | 1.85               | 2.20 | 100                     | 0.108         | N/M                  |
| APSWPA252010S1R5□TF | 1.5        | 1.30                | 1.42 | 1.80               | 2.10 | 81                      | 0.182         | N/M                  |
| APSWPA252010S2R2□TF | 2.2        | 1.20                | 1.31 | 1.20               | 1.60 | 61                      | 0.209         | N/M                  |
| APSWPA252010S3R3MTF | 3.3        | 0.90                | 0.98 | 1.05               | 1.30 | 47                      | 0.328         | M                    |
| APSWPA252010S4R7MTF | 4.7        | 0.70                | 0.76 | 0.95               | 1.15 | 42                      | 0.563         | M                    |
| APSWPA252010S5R6MTF | 5.6        | 0.73                | 0.80 | 0.80               | 0.95 | 35                      | 0.563         | M                    |
| APSWPA252010S6R8MTF | 6.8        | 0.59                | 0.64 | 0.78               | 0.92 | 31                      | 0.896         | M                    |
| APSWPA252010S100MTF | 10         | 0.50                | 0.55 | 0.65               | 0.78 | 27                      | 1.092         | M                    |

## ● APSWPA252012 Series

| Part Number         | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|---------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                     | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units               | µH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol              | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA252012SR47□TF | 0.47       | 2.15                | 2.34 | 3.82               | 4.27 | 160                     | 0.061         | N/M                  |
| APSWPA252012SR68□TF | 0.68       | 1.95                | 2.13 | 3.28               | 3.68 | 140                     | 0.074         | N/M                  |
| APSWPA252012S1R0□TF | 1          | 1.93                | 2.10 | 2.59               | 2.90 | 110                     | 0.090         | N/M                  |
| APSWPA252012S1R2□TF | 1.2        | 1.46                | 1.59 | 2.38               | 2.67 | 100                     | 0.129         | N/M                  |
| APSWPA252012S1R5□TF | 1.5        | 1.40                | 1.53 | 2.24               | 2.51 | 97                      | 0.147         | N/M                  |
| APSWPA252012S2R2□TF | 2.2        | 1.15                | 1.25 | 1.85               | 2.07 | 69                      | 0.216         | N/M                  |
| APSWPA252012S2R7MTF | 2.7        | 1.09                | 1.19 | 1.72               | 1.92 | 63                      | 0.239         | M                    |
| APSWPA252012S3R3MTF | 3.3        | 1.04                | 1.13 | 1.61               | 1.80 | 62                      | 0.264         | M                    |
| APSWPA252012S3R6MTF | 3.6        | 0.90                | 0.98 | 1.46               | 1.64 | 53                      | 0.348         | M                    |
| APSWPA252012S4R3MTF | 4.3        | 0.87                | 0.95 | 1.37               | 1.53 | 51                      | 0.377         | M                    |
| APSWPA252012S4R7MTF | 4.7        | 0.84                | 0.92 | 1.12               | 1.25 | 47                      | 0.377         | M                    |
| APSWPA252012S5R1MTF | 5.1        | 0.75                | 0.82 | 1.23               | 1.37 | 44                      | 0.500         | M                    |
| APSWPA252012S5R6MTF | 5.6        | 0.73                | 0.80 | 1.11               | 1.25 | 38                      | 0.538         | M                    |
| APSWPA252012S6R2MTF | 6.2        | 0.73                | 0.80 | 1.03               | 1.16 | 38                      | 0.542         | M                    |
| APSWPA252012S6R8MTF | 6.8        | 0.69                | 0.75 | 0.98               | 1.09 | 38                      | 0.581         | M                    |
| APSWPA252012S7R5MTF | 7.5        | 0.68                | 0.74 | 0.97               | 1.09 | 35                      | 0.611         | M                    |
| APSWPA252012S8R2MTF | 8.2        | 0.65                | 0.71 | 0.98               | 1.10 | 36                      | 0.658         | M                    |
| APSWPA252012S9R1MTF | 9.1        | 0.62                | 0.68 | 0.91               | 1.02 | 34                      | 0.690         | M                    |
| APSWPA252012S100MTF | 10         | 0.62                | 0.68 | 0.79               | 0.88 | 34                      | 0.690         | M                    |
| APSWPA252012S120MTF | 12         | 0.51                | 0.56 | 0.78               | 0.88 | 28                      | 1.075         | M                    |
| APSWPA252012S150MTF | 15         | 0.42                | 0.46 | 0.68               | 0.77 | 25                      | 1.591         | M                    |
| APSWPA252012S220MTF | 22         | 0.38                | 0.41 | 0.53               | 0.59 | 20                      | 1.976         | M                    |

## Electrical Characteristics

## ● APSWPA3010 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          | M=±20%<br>N=±30%     |
| Units             | µH         | A                   |      | A                  |      | MHz                     | Ω             |                      |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA3010S1R0□TF | 1          | 1.45                | 1.80 | 1.40               | 2.10 | 180                     | 0.085         | N/M                  |
| APSWPA3010S1R2□TF | 1.2        | 1.45                | 1.80 | 1.25               | 1.70 | 137                     | 0.085         | N/M                  |
| APSWPA3010S1R5□TF | 1.5        | 1.30                | 1.60 | 1.27               | 1.70 | 120                     | 0.104         | N/M                  |
| APSWPA3010S2R2□TF | 2.2        | 1.09                | 1.40 | 1.15               | 1.50 | 100                     | 0.143         | N/M                  |
| APSWPA3010S2R7□TF | 2.7        | 1.02                | 1.40 | 1.00               | 1.20 | 90                      | 0.169         | N/M                  |
| APSWPA3010S3R3□TF | 3.3        | 0.96                | 1.20 | 0.97               | 1.20 | 74                      | 0.189         | N/M                  |
| APSWPA3010S3R6MTF | 3.6        | 0.90                | 1.10 | 0.95               | 1.20 | 67                      | 0.215         | M                    |
| APSWPA3010S4R7MTF | 4.7        | 0.77                | 1.10 | 0.75               | 1.05 | 59                      | 0.293         | M                    |
| APSWPA3010S5R6MTF | 5.6        | 0.70                | 1.05 | 0.58               | 0.65 | 40                      | 0.322         | M                    |
| APSWPA3010S6R8MTF | 6.8        | 0.66                | 0.96 | 0.55               | 0.72 | 42                      | 0.397         | M                    |
| APSWPA3010S8R2MTF | 8.2        | 0.58                | 0.70 | 0.55               | 0.70 | 23                      | 0.520         | M                    |
| APSWPA3010S100MTF | 10         | 0.58                | 0.70 | 0.55               | 0.75 | 39                      | 0.520         | M                    |
| APSWPA3010S120MTF | 12         | 0.52                | 0.67 | 0.43               | 0.65 | 36                      | 0.657         | M                    |
| APSWPA3010S150MTF | 15         | 0.47                | 0.57 | 0.42               | 0.57 | 30                      | 0.793         | M                    |
| APSWPA3010S220MTF | 22         | 0.38                | 0.52 | 0.35               | 0.48 | 28                      | 1.209         | M                    |
| APSWPA3010S270MTF | 27         | 0.35                | 0.50 | 0.30               | 0.45 | 25                      | 1.404         | M                    |
| APSWPA3010S330MTF | 33         | 0.30                | 0.55 | 0.29               | 0.42 | 18                      | 2.015         | M                    |
| APSWPA3010S390MTF | 39         | 0.28                | 0.53 | 0.28               | 0.38 | 18                      | 2.275         | M                    |
| APSWPA3010S430MTF | 43         | 0.27                | 0.52 | 0.23               | 0.36 | 18                      | 2.340         | M                    |
| APSWPA3010S470MTF | 47         | 0.26                | 0.52 | 0.22               | 0.35 | 18                      | 2.535         | M                    |
| APSWPA3010S510MTF | 51         | 0.25                | 0.48 | 0.21               | 0.33 | 18                      | 2.860         | M                    |
| APSWPA3010S560MTF | 56         | 0.24                | 0.35 | 0.21               | 0.28 | 16                      | 3.016         | M                    |

## ● APSWPA3012 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          | M=±20%<br>N=±30%     |
| Units             | µH         | A                   |      | A                  |      | MHz                     | Ω             |                      |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA3012SR22□TF | 0.22       | 3.00                | 3.30 | 5.30               | 6.00 | 321                     | 0.022         | N/M                  |
| APSWPA3012SR82□TF | 0.82       | 2.47                | 3.00 | 2.05               | 2.80 | 180                     | 0.039         | N/M                  |
| APSWPA3012S1R0□TF | 1          | 2.20                | 2.70 | 1.87               | 2.80 | 120                     | 0.052         | N/M                  |
| APSWPA3012S1R2□TF | 1.2        | 2.01                | 2.20 | 2.22               | 2.50 | 120                     | 0.059         | N/M                  |
| APSWPA3012S1R5□TF | 1.5        | 2.01                | 2.20 | 1.62               | 1.90 | 110                     | 0.078         | N/M                  |
| APSWPA3012S1R8□TF | 1.8        | 1.65                | 1.80 | 1.30               | 1.90 | 90                      | 0.082         | N/M                  |
| APSWPA3012S2R2□TF | 2.2        | 1.55                | 1.70 | 1.20               | 1.90 | 84                      | 0.098         | N/M                  |
| APSWPA3012S2R4□TF | 2.4        | 1.60                | 1.70 | 1.15               | 1.50 | 100                     | 0.088         | N/M                  |
| APSWPA3012S2R7MTF | 2.7        | 1.48                | 1.50 | 1.14               | 1.50 | 65                      | 0.110         | M                    |
| APSWPA3012S3R3MTF | 3.3        | 1.36                | 1.40 | 1.05               | 1.50 | 64                      | 0.130         | M                    |
| APSWPA3012S3R6MTF | 3.6        | 1.36                | 1.40 | 1.05               | 1.50 | 36                      | 0.130         | M                    |
| APSWPA3012S3R9MTF | 3.9        | 1.24                | 1.30 | 1.00               | 1.30 | 61                      | 0.189         | M                    |

## Electrical Characteristics

## ● APSWPA3012 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA3012S4R7MTF | 4.7        | 1.24                | 1.30 | 0.90               | 1.00 | 61                      | 0.156         | M                    |
| APSWPA3012S6R8MTF | 6.8        | 0.98                | 1.10 | 0.75               | 0.90 | 61                      | 0.247         | M                    |
| APSWPA3012S100MTF | 10         | 0.83                | 0.90 | 0.60               | 0.88 | 42                      | 0.345         | M                    |
| APSWPA3012S120MTF | 12         | 0.73                | 0.84 | 0.48               | 0.67 | 32                      | 0.449         | M                    |
| APSWPA3012S150MTF | 15         | 0.71                | 0.77 | 0.45               | 0.62 | 27                      | 0.468         | M                    |
| APSWPA3012S180MTF | 18         | 0.58                | 0.65 | 0.43               | 0.59 | 25                      | 0.709         | M                    |
| APSWPA3012S220MTF | 22         | 0.53                | 0.59 | 0.42               | 0.52 | 23                      | 0.839         | M                    |
| APSWPA3012S270MTF | 27         | 0.47                | 0.51 | 0.35               | 0.48 | 21                      | 1.131         | M                    |
| APSWPA3012S330MTF | 33         | 0.46                | 0.50 | 0.36               | 0.46 | 18                      | 1.138         | M                    |
| APSWPA3012S360MTF | 36         | 0.44                | 0.48 | 0.34               | 0.44 | 18                      | 1.235         | M                    |
| APSWPA3012S390MTF | 39         | 0.37                | 0.41 | 0.30               | 0.39 | 18                      | 1.729         | M                    |
| APSWPA3012S470MTF | 47         | 0.35                | 0.40 | 0.27               | 0.35 | 14                      | 1.885         | M                    |
| APSWPA3012S560MTF | 56         | 0.28                | 0.40 | 0.26               | 0.33 | 9                       | 1.794         | M                    |
| APSWPA3012S680MTF | 68         | 0.33                | 0.37 | 0.24               | 0.29 | 7                       | 2.171         | M                    |
| APSWPA3012S820MTF | 82         | 0.27                | 0.31 | 0.17               | 0.27 | 7                       | 3.302         | M                    |
| APSWPA3012S101MTF | 100        | 0.25                | 0.29 | 0.21               | 0.23 | 5                       | 3.718         | M                    |

## ● APSWPA3015 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA3015SR50□TF | 0.5        | 2.60                | 2.80 | 3.90               | 4.20 | 162                     | 0.039         | N/M                  |
| APSWPA3015S1R0□TF | 1          | 2.35                | 2.50 | 2.32               | 2.80 | 150                     | 0.039         | N/M                  |
| APSWPA3015S1R2□TF | 1.2        | 1.95                | 2.30 | 2.21               | 3.10 | 110                     | 0.052         | N/M                  |
| APSWPA3015S1R5□TF | 1.5        | 1.70                | 2.20 | 2.30               | 2.70 | 100                     | 0.065         | N/M                  |
| APSWPA3015S1R8□TF | 1.8        | 1.70                | 2.20 | 1.75               | 2.20 | 92                      | 0.065         | N/M                  |
| APSWPA3015S2R2□TF | 2.2        | 1.60                | 2.00 | 1.60               | 2.00 | 86                      | 0.078         | N/M                  |
| APSWPA3015S2R7□TF | 2.7        | 1.43                | 1.90 | 1.52               | 1.90 | 64                      | 0.098         | N/M                  |
| APSWPA3015S3R3MTF | 3.3        | 1.36                | 1.60 | 1.32               | 1.81 | 68                      | 0.104         | M                    |
| APSWPA3015S3R6MTF | 3.6        | 1.20                | 1.50 | 1.28               | 1.60 | 59                      | 0.137         | M                    |
| APSWPA3015S3R9MTF | 3.9        | 1.20                | 1.50 | 1.20               | 1.40 | 47                      | 0.137         | M                    |
| APSWPA3015S4R3MTF | 4.3        | 1.14                | 1.30 | 1.20               | 1.40 | 53                      | 0.150         | M                    |
| APSWPA3015S4R7MTF | 4.7        | 1.09                | 1.30 | 1.10               | 1.40 | 46                      | 0.163         | M                    |
| APSWPA3015S5R1MTF | 5.1        | 1.05                | 1.20 | 1.00               | 1.20 | 49                      | 0.173         | M                    |
| APSWPA3015S6R2MTF | 6.2        | 0.86                | 1.00 | 1.00               | 1.20 | 46                      | 0.254         | M                    |
| APSWPA3015S6R8MTF | 6.8        | 0.85                | 1.10 | 0.85               | 1.10 | 39                      | 0.260         | M                    |
| APSWPA3015S100MTF | 10         | 0.77                | 0.90 | 0.72               | 0.92 | 41                      | 0.325         | M                    |
| APSWPA3015S120MTF | 12         | 0.68                | 0.89 | 0.70               | 0.90 | 32                      | 0.416         | M                    |

## Electrical Characteristics

## ● APSWPA3015 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA3015S150MTF | 15         | 0.65                | 0.72 | 0.66               | 0.88 | 30                      | 0.455         | M                    |
| APSWPA3015S180MTF | 18         | 0.59                | 0.72 | 0.56               | 0.72 | 23                      | 0.559         | M                    |
| APSWPA3015S220MTF | 22         | 0.57                | 0.69 | 0.52               | 0.68 | 23                      | 0.598         | M                    |
| APSWPA3015S270MTF | 27         | 0.45                | 0.56 | 0.48               | 0.56 | 22                      | 0.949         | M                    |
| APSWPA3015S330MTF | 33         | 0.43                | 0.51 | 0.44               | 0.53 | 20                      | 1.066         | M                    |
| APSWPA3015S390MTF | 39         | 0.39                | 0.44 | 0.41               | 0.55 | 14                      | 1.294         | M                    |
| APSWPA3015S430MTF | 43         | 0.37                | 0.48 | 0.37               | 0.43 | 16                      | 1.378         | M                    |
| APSWPA3015S470MTF | 47         | 0.35                | 0.44 | 0.35               | 0.43 | 14                      | 1.625         | M                    |
| APSWPA3015S560MTF | 56         | 0.34                | 0.41 | 0.33               | 0.42 | 13                      | 1.664         | M                    |
| APSWPA3015S620MTF | 62         | 0.30                | 0.41 | 0.30               | 0.40 | 13                      | 2.093         | M                    |
| APSWPA3015S680MTF | 68         | 0.23                | 0.31 | 0.28               | 0.37 | 11                      | 3.510         | M                    |
| APSWPA3015S101MTF | 100        | 0.21                | 0.25 | 0.23               | 0.25 | 7.2                     | 4.043         | M                    |
| APSWPA3015S151MTF | 150        | 0.19                | 0.23 | 0.18               | 0.22 | 4.5                     | 4.940         | M                    |

## ● APSWPA4010 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA4010S1R0□TF | 1          | 1.90                | 2.40 | 2.00               | 2.30 | 104                     | 0.067         | N/M                  |
| APSWPA4010S1R5□TF | 1.5        | 1.70                | 2.00 | 1.68               | 2.00 | 71                      | 0.084         | N/M                  |
| APSWPA4010S2R2MTF | 2.2        | 1.50                | 2.00 | 1.20               | 1.50 | 52                      | 0.102         | M                    |
| APSWPA4010S3R3MTF | 3.3        | 1.40                | 1.80 | 1.10               | 1.40 | 42                      | 0.120         | M                    |
| APSWPA4010S4R7MTF | 4.7        | 1.20                | 1.50 | 0.95               | 1.10 | 30                      | 0.168         | M                    |
| APSWPA4010S6R8MTF | 6.8        | 1.00                | 1.20 | 0.80               | 0.95 | 26                      | 0.240         | M                    |
| APSWPA4010S100MTF | 10         | 0.75                | 1.00 | 0.62               | 0.75 | 19                      | 0.360         | M                    |
| APSWPA4010S150MTF | 15         | 0.60                | 0.85 | 0.54               | 0.61 | 17                      | 0.516         | M                    |
| APSWPA4010S220MTF | 22         | 0.50                | 0.75 | 0.45               | 0.52 | 11                      | 0.684         | M                    |

## Electrical Characteristics

## ● APSWP4012 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA4012SR82□TF | 0.82       | 1.65                | 2.50 | 3.02               | 3.30 | 150                     | 0.065         | N/M                  |
| APSWPA4012S1R0□TF | 1          | 1.65                | 2.50 | 2.61               | 3.20 | 120                     | 0.065         | N/M                  |
| APSWPA4012S1R5□TF | 1.5        | 1.46                | 2.20 | 2.10               | 2.70 | 90                      | 0.085         | N/M                  |
| APSWPA4012S1R8□TF | 1.8        | 1.32                | 1.90 | 2.12               | 2.60 | 88                      | 0.104         | N/M                  |
| APSWPA4012S2R2□TF | 2.2        | 1.32                | 1.90 | 1.76               | 2.30 | 74                      | 0.104         | N/M                  |
| APSWPA4012S2R7□TF | 2.7        | 1.25                | 1.70 | 1.90               | 2.30 | 71                      | 0.117         | N/M                  |
| APSWPA4012S3R3□TF | 3.3        | 1.12                | 1.60 | 1.72               | 2.10 | 60                      | 0.143         | N/M                  |
| APSWPA4012S3R6□TF | 3.6        | 1.12                | 1.60 | 1.20               | 1.70 | 57                      | 0.143         | N/M                  |
| APSWPA4012S4R3□TF | 4.3        | 1.00                | 1.50 | 1.58               | 1.70 | 54                      | 0.182         | N/M                  |
| APSWPA4012S4R7□TF | 4.7        | 1.05                | 1.50 | 1.15               | 1.80 | 50                      | 0.163         | N/M                  |
| APSWPA4012S5R1□TF | 5.1        | 0.95                | 1.50 | 1.55               | 1.60 | 50                      | 0.201         | N/M                  |
| APSWPA4012S5R6□TF | 5.6        | 1.00                | 1.20 | 1.00               | 1.60 | 42                      | 0.182         | N/M                  |
| APSWPA4012S6R8MTF | 6.8        | 0.84                | 1.20 | 0.85               | 1.40 | 40                      | 0.257         | M                    |
| APSWPA4012S100MTF | 10         | 0.77                | 1.00 | 0.80               | 1.10 | 33                      | 0.345         | M                    |
| APSWPA4012S120MTF | 12         | 0.70                | 0.95 | 0.66               | 1.00 | 32                      | 0.377         | M                    |
| APSWPA4012S150MTF | 15         | 0.64                | 0.85 | 0.56               | 0.80 | 25                      | 0.442         | M                    |
| APSWPA4012S180MTF | 18         | 0.55                | 0.80 | 0.55               | 0.75 | 23                      | 0.611         | M                    |
| APSWPA4012S220MTF | 22         | 0.49                | 0.75 | 0.46               | 0.70 | 20                      | 0.763         | M                    |
| APSWPA4012S270MTF | 27         | 0.45                | 0.60 | 0.50               | 0.70 | 18                      | 0.936         | M                    |
| APSWPA4012S330MTF | 33         | 0.42                | 0.58 | 0.42               | 0.60 | 17                      | 1.053         | M                    |
| APSWPA4012S360MTF | 36         | 0.40                | 0.56 | 0.40               | 0.50 | 14                      | 1.170         | M                    |
| APSWPA4012S390MTF | 39         | 0.37                | 0.50 | 0.55               | 0.66 | 16                      | 1.430         | M                    |
| APSWPA4012S470MTF | 47         | 0.37                | 0.50 | 0.35               | 0.50 | 12                      | 1.430         | M                    |
| APSWPA4012S560MTF | 56         | 0.33                | 0.46 | 0.33               | 0.45 | 11                      | 1.625         | M                    |
| APSWPA4012S680MTF | 68         | 0.27                | 0.45 | 0.38               | 0.45 | 11                      | 2.535         | M                    |
| APSWPA4012S820MTF | 82         | 0.26                | 0.36 | 0.28               | 0.40 | 11                      | 2.782         | M                    |
| APSWPA4012S101MTF | 100        | 0.25                | 0.35 | 0.25               | 0.30 | 9.4                     | 2.873         | M                    |

## ● APSWP4018 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA4018SR47□TF | 0.47       | 4.00                | 4.50 | 4.30               | 5.20 | 155                     | 0.018         | N/M                  |
| APSWPA4018SR68□TF | 0.68       | 3.30                | 3.80 | 4.90               | 5.60 | 128                     | 0.026         | N/M                  |
| APSWPA4018S1R0□TF | 1          | 2.00                | 3.30 | 4.80               | 5.20 | 80                      | 0.033         | N/M                  |
| APSWPA4018S1R5□TF | 1.5        | 1.80                | 3.20 | 3.35               | 4.00 | 65                      | 0.039         | N/M                  |
| APSWPA4018S1R8□TF | 1.8        | 2.00                | 2.80 | 3.00               | 3.40 | 54                      | 0.044         | N/M                  |
| APSWPA4018S2R2□TF | 2.2        | 1.65                | 2.60 | 2.70               | 3.20 | 52                      | 0.059         | N/M                  |

## Electrical Characteristics

## ● APSWP4018 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA4018S3R3MTF | 3.3        | 1.23                | 2.10 | 2.45               | 2.90 | 44                      | 0.091         | M                    |
| APSWPA4018S4R7MTF | 4.7        | 1.20                | 1.80 | 1.70               | 2.20 | 34                      | 0.117         | M                    |
| APSWPA4018S6R8MTF | 6.8        | 1.06                | 1.50 | 1.45               | 2.00 | 29                      | 0.143         | M                    |
| APSWPA4018S100MTF | 10         | 0.84                | 1.20 | 1.30               | 1.60 | 24                      | 0.234         | M                    |
| APSWPA4018S150MTF | 15         | 0.65                | 1.00 | 0.94               | 1.10 | 19                      | 0.325         | M                    |
| APSWPA4018S220MTF | 22         | 0.59                | 0.85 | 0.80               | 0.88 | 16                      | 0.468         | M                    |
| APSWPA4018S330MTF | 33         | 0.49                | 0.72 | 0.56               | 0.75 | 12                      | 0.689         | M                    |
| APSWPA4018S470MTF | 47         | 0.42                | 0.65 | 0.57               | 0.70 | 10                      | 0.845         | M                    |
| APSWPA4018S680MTF | 68         | 0.32                | 0.52 | 0.47               | 0.51 | 8.3                     | 1.300         | M                    |
| APSWPA4018S101MTF | 100        | 0.25                | 0.41 | 0.40               | 0.44 | 6.5                     | 2.275         | M                    |
| APSWPA4018S151MTF | 150        | 0.22                | 0.36 | 0.31               | 0.34 | 5.5                     | 3.250         | M                    |
| APSWPA4018S221MTF | 220        | 0.17                | 0.27 | 0.27               | 0.30 | 4                       | 5.200         | M                    |

## ● APSWP4020 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |       | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|-------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ.  | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |       | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |       | S.R.F                   | DCR           |                      |
| APSWPA4020SR24MTF | 0.24       | 4.50                | 5.20 | 10.50              | 12.50 | 283                     | 0.014         | M                    |
| APSWPA4020SR33□TF | 0.33       | 3.30                | 4.90 | 7.50               | 8.50  | 223                     | 0.016         | N/M                  |
| APSWPA4020SR47□TF | 0.47       | 3.30                | 3.70 | 7.00               | 7.50  | 160                     | 0.029         | N/M                  |
| APSWPA4020SR68□TF | 0.68       | 2.80                | 3.30 | 6.40               | 6.60  | 120                     | 0.036         | N/M                  |
| APSWPA4020S1R0□TF | 1          | 2.15                | 3.20 | 4.78               | 5.20  | 75                      | 0.038         | N/M                  |
| APSWPA4020S1R2□TF | 1.2        | 2.15                | 3.20 | 5.10               | 5.60  | 72                      | 0.038         | N/M                  |
| APSWPA4020S1R5□TF | 1.5        | 1.98                | 3.00 | 4.45               | 4.90  | 71                      | 0.046         | N/M                  |
| APSWPA4020S2R2□TF | 2.2        | 1.85                | 2.80 | 3.40               | 3.70  | 49                      | 0.052         | N/M                  |
| APSWPA4020S3R3□TF | 3.3        | 1.40                | 2.50 | 3.20               | 3.50  | 44                      | 0.091         | N/M                  |
| APSWPA4020S3R6□TF | 3.6        | 1.54                | 2.50 | 2.80               | 3.00  | 49                      | 0.072         | N/M                  |
| APSWPA4020S4R7□TF | 4.7        | 1.34                | 2.00 | 2.35               | 2.50  | 42                      | 0.098         | N/M                  |
| APSWPA4020S5R1MTF | 5.1        | 1.27                | 1.80 | 2.30               | 2.50  | 42                      | 0.111         | M                    |
| APSWPA4020S5R6MTF | 5.6        | 1.22                | 1.80 | 2.20               | 2.40  | 30                      | 0.117         | M                    |
| APSWPA4020S6R2MTF | 6.2        | 1.08                | 1.60 | 2.15               | 2.30  | 36                      | 0.150         | M                    |
| APSWPA4020S6R8MTF | 6.8        | 1.04                | 1.60 | 2.20               | 2.40  | 33                      | 0.163         | M                    |
| APSWPA4020S7R5MTF | 7.5        | 1.08                | 1.50 | 1.85               | 2.00  | 30                      | 0.150         | M                    |
| APSWPA4020S8R2MTF | 8.2        | 1.04                | 1.40 | 1.75               | 1.90  | 27                      | 0.163         | M                    |
| APSWPA4020S100MTF | 10         | 0.90                | 1.20 | 1.60               | 1.70  | 26                      | 0.215         | M                    |
| APSWPA4020S120MTF | 12         | 0.88                | 1.20 | 1.50               | 1.60  | 26                      | 0.228         | M                    |
| APSWPA4020S150MTF | 15         | 0.77                | 1.10 | 1.35               | 1.50  | 24                      | 0.299         | M                    |
| APSWPA4020S220MTF | 22         | 0.62                | 0.87 | 1.05               | 1.10  | 15                      | 0.455         | M                    |



## Electrical Characteristics

## ● APSWP4020 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          | M=±20%<br>N=±30%     |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             |                      |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA4020S270MTF | 27         | 0.50                | 0.70 | 1.02               | 1.10 | 14                      | 0.709         | M                    |
| APSWPA4020S330MTF | 33         | 0.49                | 0.68 | 0.85               | 0.93 | 11                      | 0.715         | M                    |
| APSWPA4020S390MTF | 39         | 0.46                | 0.64 | 0.82               | 0.90 | 11                      | 0.845         | M                    |
| APSWPA4020S430MTF | 43         | 0.45                | 0.63 | 0.77               | 0.85 | 10                      | 0.858         | M                    |
| APSWPA4020S470MTF | 47         | 0.44                | 0.61 | 0.74               | 0.81 | 10                      | 0.923         | M                    |
| APSWPA4020S510MTF | 51         | 0.42                | 0.59 | 0.70               | 0.77 | 10                      | 0.975         | M                    |
| APSWPA4020S560MTF | 56         | 0.41                | 0.57 | 0.66               | 0.72 | 10                      | 1.040         | M                    |
| APSWPA4020S620MTF | 62         | 0.39                | 0.52 | 0.65               | 0.71 | 9.6                     | 1.170         | M                    |
| APSWPA4020S680MTF | 68         | 0.36                | 0.50 | 0.61               | 0.67 | 7.7                     | 1.380         | M                    |
| APSWPA4020S750MTF | 75         | 0.35                | 0.49 | 0.70               | 0.77 | 7.7                     | 1.510         | M                    |
| APSWPA4020S820MTF | 82         | 0.34                | 0.47 | 0.50               | 0.55 | 7.2                     | 1.520         | M                    |
| APSWPA4020S101MTF | 100        | 0.31                | 0.43 | 0.48               | 0.53 | 6.3                     | 2.020         | M                    |

## ● APSWP4026 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          | M=±20%<br>N=±30%     |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             |                      |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA4026S1R0□TF | 1          | 3.05                | 3.66 | 3.35               | 3.72 | 151                     | 0.031         | N/M                  |
| APSWPA4026S1R2□TF | 1.2        | 2.33                | 2.80 | 3.15               | 3.50 | 120                     | 0.039         | N/M                  |
| APSWPA4026S1R5□TF | 1.5        | 2.33                | 2.80 | 2.44               | 2.71 | 100                     | 0.039         | N/M                  |
| APSWPA4026S2R2MTF | 2.2        | 2.03                | 2.44 | 2.13               | 2.36 | 96                      | 0.051         | M                    |
| APSWPA4026S3R3MTF | 3.3        | 1.73                | 2.08 | 1.83               | 2.03 | 58                      | 0.064         | M                    |
| APSWPA4026S4R7MTF | 4.7        | 1.62                | 1.94 | 1.47               | 1.63 | 46                      | 0.071         | M                    |
| APSWPA4026S6R8MTF | 6.8        | 1.52                | 1.82 | 1.32               | 1.47 | 33                      | 0.084         | M                    |
| APSWPA4026S100MTF | 10         | 1.32                | 1.58 | 1.02               | 1.13 | 26                      | 0.109         | M                    |
| APSWPA4026S150MTF | 15         | 1.12                | 1.34 | 0.91               | 1.01 | 19                      | 0.142         | M                    |
| APSWPA4026S220MTF | 22         | 0.91                | 1.09 | 0.61               | 0.68 | 13                      | 0.212         | M                    |
| APSWPA4026S330MTF | 33         | 0.71                | 0.85 | 0.56               | 0.62 | 9                       | 0.347         | M                    |
| APSWPA4026S470MTF | 47         | 0.66                | 0.79 | 0.41               | 0.46 | 6                       | 0.386         | M                    |

## ● APSWP4030 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          | M=±20%<br>N=±30%     |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             |                      |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA4030SR68□TF | 0.68       | 4.56                | 5.10 | 6.80               | 8.00 | 130                     | 0.013         | N/M                  |
| APSWPA4030SR91□TF | 0.91       | 4.15                | 4.70 | 6.25               | 6.80 | 100                     | 0.017         | N/M                  |

## Electrical Characteristics

## ● APSWP4030 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA4030S1R0□TF | 1          | 4.15                | 4.70 | 5.26               | 5.70 | 70                      | 0.018         | N/M                  |
| APSWPA4030S1R2□TF | 1.2        | 3.82                | 4.20 | 5.80               | 6.30 | 80                      | 0.020         | N/M                  |
| APSWPA4030S1R5□TF | 1.5        | 3.34                | 3.60 | 4.84               | 5.30 | 62                      | 0.026         | N/M                  |
| APSWPA4030S1R8□TF | 1.8        | 3.20                | 3.30 | 4.50               | 5.00 | 60                      | 0.033         | N/M                  |
| APSWPA4030S2R2□TF | 2.2        | 2.95                | 3.20 | 4.90               | 5.80 | 52                      | 0.039         | N/M                  |
| APSWPA4030S3R3MTF | 3.3        | 2.40                | 2.60 | 3.30               | 3.60 | 38                      | 0.052         | M                    |
| APSWPA4030S3R9MTF | 3.9        | 2.10                | 2.30 | 3.00               | 3.30 | 32                      | 0.074         | M                    |
| APSWPA4030S4R3MTF | 4.3        | 2.10                | 2.30 | 2.95               | 3.20 | 37                      | 0.072         | M                    |
| APSWPA4030S4R7MTF | 4.7        | 2.00                | 2.30 | 2.90               | 3.20 | 31                      | 0.078         | M                    |
| APSWPA4030S5R6MTF | 5.6        | 1.95                | 2.10 | 2.60               | 2.80 | 30                      | 0.085         | M                    |
| APSWPA4030S6R8MTF | 6.8        | 1.60                | 1.70 | 2.75               | 3.00 | 24                      | 0.117         | M                    |
| APSWPA4030S7R5MTF | 7.5        | 1.65                | 1.80 | 2.20               | 2.40 | 26                      | 0.111         | M                    |
| APSWPA4030S8R2MTF | 8.2        | 1.60                | 1.70 | 2.10               | 2.30 | 26                      | 0.117         | M                    |
| APSWPA4030S100MTF | 10         | 1.50                | 1.60 | 1.95               | 2.40 | 21                      | 0.130         | M                    |
| APSWPA4030S120MTF | 12         | 1.30                | 1.40 | 1.70               | 1.80 | 18                      | 0.176         | M                    |
| APSWPA4030S150MTF | 15         | 1.11                | 1.20 | 1.65               | 1.80 | 16                      | 0.247         | M                    |
| APSWPA4030S180MTF | 18         | 1.10                | 1.20 | 1.40               | 1.50 | 10                      | 0.260         | M                    |
| APSWPA4030S220MTF | 22         | 1.00                | 1.20 | 1.30               | 1.40 | 10                      | 0.293         | M                    |
| APSWPA4030S330MTF | 33         | 0.84                | 0.92 | 1.10               | 1.20 | 10                      | 0.429         | M                    |
| APSWPA4030S360MTF | 36         | 0.83                | 0.91 | 1.05               | 1.10 | 9.8                     | 0.436         | M                    |
| APSWPA4030S390MTF | 39         | 0.73                | 0.80 | 1.03               | 1.10 | 10                      | 0.566         | M                    |
| APSWPA4030S470MTF | 47         | 0.72                | 0.80 | 0.95               | 1.00 | 8.4                     | 0.579         | M                    |
| APSWPA4030S510MTF | 51         | 0.70                | 0.80 | 0.90               | 1.13 | 8.4                     | 0.611         | M                    |
| APSWPA4030S560MTF | 56         | 0.65                | 0.71 | 0.85               | 0.94 | 8.4                     | 0.722         | M                    |
| APSWPA4030S620MTF | 62         | 0.63                | 0.70 | 0.80               | 0.99 | 7                       | 0.760         | M                    |
| APSWPA4030S680MTF | 68         | 0.52                | 0.57 | 0.72               | 0.80 | 7                       | 1.128         | M                    |
| APSWPA4030S750MTF | 75         | 0.48                | 0.53 | 0.70               | 0.88 | 6.3                     | 1.326         | M                    |
| APSWPA4030S820MTF | 82         | 0.47                | 0.52 | 0.66               | 0.72 | 5.6                     | 1.378         | M                    |
| APSWPA4030S910MTF | 91         | 0.46                | 0.50 | 0.65               | 0.71 | 5.6                     | 1.430         | M                    |
| APSWPA4030S101MTF | 100        | 0.45                | 0.49 | 0.60               | 0.73 | 5.6                     | 1.495         | M                    |
| APSWPA4030S121MTF | 120        | 0.42                | 0.46 | 0.55               | 0.60 | 5.4                     | 1.755         | M                    |
| APSWPA4030S151MTF | 150        | 0.30                | 0.35 | 0.50               | 0.55 | 4                       | 2.340         | M                    |
| APSWPA4030S221MTF | 220        | 0.35                | 0.40 | 0.40               | 0.50 | 4.2                     | 3.250         | M                    |
| APSWPA4030S331MTF | 330        | 0.25                | 0.26 | 0.30               | 0.40 | 2.7                     | 5.200         | M                    |
| APSWPA4030S471□TF | 470        | 0.20                | 0.23 | 0.30               | 0.35 | 2                       | 9.360         | K/M                  |
| APSWPA4030S501MTF | 500        | 0.15                | 0.20 | 0.28               | 0.30 | 2                       | 9.027         | M                    |
| APSWPA4030S681MTF | 680        | 0.14                | 0.18 | 0.19               | 0.20 | 1.2                     | 9.854         | M                    |

## Electrical Characteristics

## ● APSWP5012 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          | M=±20%<br>N=±30%     |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             |                      |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA5012S1R0□TF | 1          | 2.00                | 2.40 | 4.40               | 4.70 | 103                     | 0.068         | N/M                  |
| APSWPA5012S1R5□TF | 1.5        | 1.90                | 2.20 | 3.70               | 3.80 | 68                      | 0.086         | N/M                  |
| APSWPA5012S2R2□TF | 2.2        | 1.70                | 2.00 | 3.10               | 3.20 | 50                      | 0.108         | N/M                  |
| APSWPA5012S3R3□TF | 3.3        | 1.40                | 1.70 | 2.40               | 2.60 | 34                      | 0.151         | N/M                  |
| APSWPA5012S4R7□TF | 4.7        | 1.30                | 1.50 | 2.20               | 2.30 | 31                      | 0.197         | N/M                  |
| APSWPA5012S6R8MTF | 6.8        | 1.00                | 1.20 | 1.70               | 1.90 | 22                      | 0.294         | M                    |
| APSWPA5012S100MTF | 10         | 0.85                | 1.00 | 1.40               | 1.50 | 17                      | 0.413         | M                    |
| APSWPA5012S150MTF | 15         | 0.80                | 0.92 | 1.20               | 1.30 | 13                      | 0.523         | M                    |
| APSWPA5012S220MTF | 22         | 0.60                | 0.68 | 0.88               | 0.98 | 16                      | 0.858         | M                    |

## ● APSWP5020 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |       | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|-------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ.  | Min.                    | Max.          | M=±20%<br>N=±30%     |
| Units             | μH         | A                   |      | A                  |       | MHz                     | Ω             |                      |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |       | S.R.F                   | DCR           |                      |
| APSWPA5020SR22□TF | 0.22       | 5.30                | 6.00 | 9.00               | 12.00 | 280                     | 0.011         | N/M                  |
| APSWPA5020SR24□TF | 0.24       | 5.30                | 6.00 | 8.00               | 10.00 | 248                     | 0.011         | N/M                  |
| APSWPA5020SR47□TF | 0.47       | 4.60                | 5.00 | 6.15               | 6.70  | 160                     | 0.017         | N/M                  |
| APSWPA5020SR56□TF | 0.56       | 3.80                | 4.20 | 8.50               | 9.60  | 137                     | 0.022         | N/M                  |
| APSWPA5020SR68□TF | 0.68       | 4.00                | 4.40 | 5.50               | 6.00  | 120                     | 0.022         | N/M                  |
| APSWPA5020SR75□TF | 0.75       | 4.00                | 4.40 | 5.50               | 6.00  | 117                     | 0.022         | N/M                  |
| APSWPA5020S1R0□TF | 1          | 3.80                | 4.10 | 4.10               | 5.00  | 114                     | 0.026         | N/M                  |
| APSWPA5020S1R2□TF | 1.2        | 3.55                | 3.90 | 4.50               | 4.90  | 83                      | 0.029         | N/M                  |
| APSWPA5020S1R5□TF | 1.5        | 3.20                | 3.50 | 4.10               | 4.50  | 68                      | 0.034         | N/M                  |
| APSWPA5020S2R2□TF | 2.2        | 2.90                | 3.10 | 3.20               | 4.00  | 57                      | 0.042         | N/M                  |
| APSWPA5020S2R7□TF | 2.7        | 2.70                | 2.90 | 2.90               | 3.50  | 52                      | 0.049         | N/M                  |
| APSWPA5020S3R0□TF | 3          | 2.70                | 2.90 | 2.55               | 2.80  | 49                      | 0.049         | N/M                  |
| APSWPA5020S3R3□TF | 3.3        | 2.50                | 2.70 | 2.55               | 3.00  | 46                      | 0.056         | N/M                  |
| APSWPA5020S3R6□TF | 3.6        | 2.50                | 2.70 | 2.80               | 3.00  | 43                      | 0.056         | N/M                  |
| APSWPA5020S3R9□TF | 3.9        | 2.50                | 2.70 | 2.30               | 2.80  | 40                      | 0.056         | N/M                  |
| APSWPA5020S4R3MTF | 4.3        | 2.20                | 2.40 | 2.50               | 3.00  | 37                      | 0.074         | M                    |
| APSWPA5020S4R7MTF | 4.7        | 2.20                | 2.40 | 2.50               | 2.70  | 37                      | 0.074         | M                    |
| APSWPA5020S5R1MTF | 5.1        | 2.05                | 2.20 | 2.25               | 2.60  | 32                      | 0.083         | M                    |
| APSWPA5020S5R6MTF | 5.6        | 2.05                | 2.20 | 2.30               | 2.50  | 32                      | 0.083         | M                    |
| APSWPA5020S6R8MTF | 6.8        | 1.80                | 1.90 | 2.05               | 2.20  | 30                      | 0.108         | M                    |
| APSWPA5020S7R5MTF | 7.5        | 1.75                | 1.90 | 1.85               | 2.00  | 26                      | 0.117         | M                    |
| APSWPA5020S8R2MTF | 8.2        | 1.65                | 1.80 | 1.85               | 2.00  | 26                      | 0.127         | M                    |
| APSWPA5020S9R1MTF | 9.1        | 1.55                | 1.70 | 1.70               | 1.80  | 24                      | 0.143         | M                    |
| APSWPA5020S100MTF | 10         | 1.55                | 1.70 | 1.70               | 1.80  | 24                      | 0.143         | M                    |

## Electrical Characteristics

## ● APSWP5020 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA5020S120MTF | 12         | 1.40                | 1.50 | 1.50               | 1.60 | 22                      | 0.182         | M                    |
| APSWPA5020S150MTF | 15         | 1.25                | 1.30 | 1.35               | 1.40 | 20                      | 0.215         | M                    |
| APSWPA5020S180MTF | 18         | 1.15                | 1.20 | 1.25               | 1.30 | 16                      | 0.260         | M                    |
| APSWPA5020S220MTF | 22         | 1.10                | 1.20 | 1.15               | 1.20 | 14                      | 0.294         | M                    |
| APSWPA5020S330MTF | 33         | 0.90                | 0.99 | 0.92               | 1.00 | 10                      | 0.507         | M                    |
| APSWPA5020S470MTF | 47         | 0.77                | 0.84 | 0.77               | 0.84 | 7                       | 0.680         | M                    |
| APSWPA5020S560MTF | 56         | 0.70                | 0.77 | 0.77               | 0.84 | 6                       | 0.819         | M                    |
| APSWPA5020S680MTF | 68         | 0.64                | 0.70 | 0.65               | 0.70 | 6                       | 0.962         | M                    |
| APSWPA5020S820MTF | 82         | 0.50                | 0.60 | 0.65               | 0.75 | 6                       | 1.158         | M                    |
| APSWPA5020S101MTF | 100        | 0.53                | 0.58 | 0.53               | 0.58 | 6                       | 1.430         | M                    |
| APSWPA5020S121MTF | 120        | 0.40                | 0.50 | 0.42               | 0.53 | 6                       | 1.755         | M                    |
| APSWPA5020S201MTF | 200        | 0.40                | 0.45 | 0.30               | 0.33 | 4.5                     | 2.600         | M                    |

## ● APSWP5040 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |       | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|-------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ.  | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |       | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |       | S.R.F                   | DCR           |                      |
| APSWPA5040SR22MTF | 0.22       | 6.50                | 7.50 | 18.00              | 20.00 | 289                     | 0.008         | M                    |
| APSWPA5040SR24□TF | 0.24       | 6.40                | 7.40 | 15.70              | 18.00 | 251                     | 0.008         | N/M                  |
| APSWPA5040SR47MTF | 0.47       | 6.60                | 7.60 | 10.00              | 11.50 | 171                     | 0.013         | M                    |
| APSWPA5040S1R0□TF | 1          | 4.90                | 5.10 | 7.35               | 8.20  | 117                     | 0.018         | N/M                  |
| APSWPA5040S1R2□TF | 1.2        | 4.15                | 4.30 | 6.50               | 7.10  | 110                     | 0.021         | N/M                  |
| APSWPA5040S1R5□TF | 1.5        | 4.30                | 4.80 | 6.30               | 7.30  | 86                      | 0.020         | N/M                  |
| APSWPA5040S1R8MTF | 1.8        | 4.15                | 4.30 | 5.50               | 6.40  | 55                      | 0.021         | M                    |
| APSWPA5040S2R2□TF | 2.2        | 3.80                | 4.30 | 4.90               | 5.60  | 50                      | 0.027         | N/M                  |
| APSWPA5040S2R7□TF | 2.7        | 3.60                | 4.10 | 4.30               | 5.10  | 37                      | 0.029         | N/M                  |
| APSWPA5040S3R0□TF | 3          | 3.60                | 4.20 | 4.15               | 4.80  | 37                      | 0.029         | N/M                  |
| APSWPA5040S3R3□TF | 3.3        | 3.40                | 3.90 | 3.95               | 4.60  | 32                      | 0.031         | N/M                  |
| APSWPA5040S3R6MTF | 3.6        | 3.30                | 3.70 | 3.80               | 4.40  | 30                      | 0.031         | M                    |
| APSWPA5040S3R9□TF | 3.9        | 3.20                | 3.70 | 3.55               | 4.20  | 29                      | 0.035         | N/M                  |
| APSWPA5040S4R7□TF | 4.7        | 3.00                | 3.30 | 3.50               | 3.90  | 28                      | 0.041         | N/M                  |
| APSWPA5040S5R6MTF | 5.6        | 2.80                | 3.10 | 3.00               | 4.10  | 27                      | 0.046         | M                    |
| APSWPA5040S6R8MTF | 6.8        | 2.50                | 2.80 | 2.90               | 3.50  | 21                      | 0.056         | M                    |
| APSWPA5040S8R2MTF | 8.2        | 2.30                | 2.60 | 2.70               | 3.00  | 20                      | 0.062         | M                    |
| APSWPA5040S100MTF | 10         | 2.10                | 2.40 | 2.35               | 2.90  | 18                      | 0.083         | M                    |
| APSWPA5040S120MTF | 12         | 2.00                | 2.10 | 2.20               | 2.50  | 14                      | 0.100         | M                    |
| APSWPA5040S150MTF | 15         | 2.00                | 2.10 | 2.00               | 2.30  | 13                      | 0.112         | M                    |
| APSWPA5040S180MTF | 18         | 1.45                | 1.65 | 1.70               | 2.00  | 12                      | 0.155         | M                    |

## Electrical Characteristics

## ● APSWP5040 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA5040S220MTF | 22         | 1.50                | 1.60 | 1.60               | 1.90 | 11                      | 0.168         | M                    |
| APSWPA5040S270MTF | 27         | 1.10                | 1.25 | 1.52               | 1.75 | 9.8                     | 0.244         | M                    |
| APSWPA5040S330MTF | 33         | 1.20                | 1.40 | 1.30               | 1.50 | 9                       | 0.244         | M                    |
| APSWPA5040S470MTF | 47         | 1.00                | 1.10 | 1.10               | 1.30 | 7                       | 0.354         | M                    |
| APSWPA5040S510MTF | 51         | 1.00                | 1.10 | 1.00               | 1.20 | 6                       | 0.494         | M                    |
| APSWPA5040S560MTF | 56         | 0.80                | 0.90 | 1.05               | 1.20 | 6                       | 0.494         | M                    |
| APSWPA5040S680MTF | 68         | 0.80                | 0.90 | 0.90               | 1.10 | 6                       | 0.520         | M                    |
| APSWPA5040S750MTF | 75         | 0.72                | 0.80 | 0.85               | 0.95 | 6                       | 0.585         | M                    |
| APSWPA5040S101MTF | 100        | 0.70                | 0.80 | 0.75               | 0.90 | 5                       | 0.728         | M                    |
| APSWPA5040S151MTF | 150        | 0.60                | 0.70 | 0.65               | 0.67 | 3.7                     | 0.975         | M                    |
| APSWPA5040S221MTF | 220        | 0.40                | 0.50 | 0.48               | 0.55 | 3                       | 1.820         | M                    |
| APSWPA5040S301MTF | 300        | 0.35                | 0.40 | 0.50               | 0.58 | 2.7                     | 2.600         | M                    |
| APSWPA5040S331MTF | 330        | 0.40                | 0.50 | 0.42               | 0.47 | 2.7                     | 2.730         | M                    |
| APSWPA5040S471MTF | 470        | 0.35                | 0.40 | 0.37               | 0.43 | 2.7                     | 3.900         | M                    |
| APSWPA5040S561MTF | 560        | 0.31                | 0.35 | 0.31               | 0.36 | 1.5                     | 4.920         | M                    |
| APSWPA5040S681MTF | 680        | 0.25                | 0.30 | 0.30               | 0.35 | 1.6                     | 5.070         | M                    |
| APSWPA5040S102MTF | 1000       | 0.20                | 0.23 | 0.21               | 0.25 | 1.3                     | 7.800         | M                    |

## ● APSWP5045 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA5045S2R2MTF | 2.2        | 4.70                | 5.40 | 6.40               | 7.20 | 50                      | 0.029         | M                    |
| APSWPA5045S100MTF | 10         | 2.50                | 2.90 | 3.20               | 3.70 | 17                      | 0.079         | M                    |
| APSWPA5045S220MTF | 22         | 1.55                | 1.80 | 2.00               | 2.35 | 10                      | 0.163         | M                    |

## ● APSWP6020 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA6020SR50□TF | 0.5        | 4.00                | 5.00 | 4.50               | 6.00 | 120                     | 0.018         | N/M                  |
| APSWPA6020SR68□TF | 0.68       | 3.80                | 4.80 | 6.55               | 7.80 | 115                     | 0.022         | N/M                  |
| APSWPA6020SR82□TF | 0.82       | 3.80                | 4.80 | 5.30               | 6.30 | 110                     | 0.022         | N/M                  |
| APSWPA6020S1R0□TF | 1          | 3.50                | 4.40 | 4.15               | 5.00 | 100                     | 0.026         | N/M                  |
| APSWPA6020S1R2□TF | 1.2        | 3.20                | 4.00 | 5.90               | 7.00 | 88                      | 0.029         | N/M                  |
| APSWPA6020S1R5□TF | 1.5        | 3.20                | 4.00 | 4.25               | 5.10 | 79                      | 0.029         | N/M                  |

## Electrical Characteristics

## ● APSWP6020 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA6020S1R8□TF | 1.8        | 2.75                | 3.50 | 4.85               | 5.80 | 68                      | 0.036         | N/M                  |
| APSWPA6020S2R0□TF | 2          | 2.60                | 3.30 | 4.10               | 4.90 | 65                      | 0.046         | N/M                  |
| APSWPA6020S2R2□TF | 2.2        | 2.75                | 3.50 | 3.75               | 4.50 | 61                      | 0.036         | N/M                  |
| APSWPA6020S2R7□TF | 2.7        | 2.60                | 3.30 | 3.90               | 4.60 | 56                      | 0.046         | N/M                  |
| APSWPA6020S3R3□TF | 3.3        | 2.60                | 3.30 | 3.15               | 3.70 | 51                      | 0.046         | N/M                  |
| APSWPA6020S3R9□TF | 3.9        | 2.10                | 2.60 | 3.25               | 3.90 | 45                      | 0.064         | N/M                  |
| APSWPA6020S4R3□TF | 4.3        | 2.10                | 2.60 | 2.70               | 3.20 | 44                      | 0.064         | N/M                  |
| APSWPA6020S4R7□TF | 4.7        | 2.00                | 2.50 | 3.00               | 3.60 | 41                      | 0.075         | N/M                  |
| APSWPA6020S5R6□TF | 5.6        | 1.90                | 2.40 | 2.40               | 2.90 | 36                      | 0.075         | N/M                  |
| APSWPA6020S6R2□TF | 6.2        | 1.80                | 2.30 | 2.30               | 2.70 | 31                      | 0.103         | N/M                  |
| APSWPA6020S6R8□TF | 6.8        | 1.80                | 2.30 | 2.20               | 2.60 | 31                      | 0.103         | N/M                  |
| APSWPA6020S8R2□TF | 8.2        | 1.40                | 1.80 | 2.10               | 2.50 | 27                      | 0.137         | N/M                  |
| APSWPA6020S100MTF | 10         | 1.40                | 1.80 | 1.75               | 2.10 | 27                      | 0.137         | M                    |
| APSWPA6020S120MTF | 12         | 1.30                | 1.60 | 1.45               | 1.70 | 25                      | 0.156         | M                    |
| APSWPA6020S150MTF | 15         | 1.20                | 1.50 | 1.20               | 1.40 | 21                      | 0.189         | M                    |
| APSWPA6020S180MTF | 18         | 1.08                | 1.40 | 1.20               | 1.40 | 18                      | 0.234         | M                    |
| APSWPA6020S220MTF | 22         | 1.00                | 1.30 | 1.05               | 1.20 | 16                      | 0.265         | M                    |
| APSWPA6020S330MTF | 33         | 0.84                | 1.05 | 0.95               | 1.10 | 11                      | 0.390         | M                    |
| APSWPA6020S470MTF | 47         | 0.80                | 0.90 | 0.70               | 0.90 | 10                      | 0.559         | M                    |
| APSWPA6020S331MTF | 330        | 0.33                | 0.39 | 0.27               | 0.33 | 3                       | 3.419         | M                    |

## ● APSWP6028 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA6028SR82□TF | 0.82       | 5.20                | 6.00 | 6.50               | 9.00 | 97                      | 0.016         | N/M                  |
| APSWPA6028S1R0□TF | 1          | 5.20                | 5.70 | 5.75               | 7.00 | 70                      | 0.013         | N/M                  |
| APSWPA6028S1R2□TF | 1.2        | 4.58                | 5.00 | 6.40               | 7.50 | 69                      | 0.017         | N/M                  |
| APSWPA6028S1R5□TF | 1.5        | 4.58                | 5.00 | 6.00               | 6.60 | 65                      | 0.017         | N/M                  |
| APSWPA6028S2R2□TF | 2.2        | 3.75                | 4.10 | 5.10               | 5.60 | 48                      | 0.026         | N/M                  |
| APSWPA6028S2R7□TF | 2.7        | 3.75                | 4.10 | 3.80               | 4.10 | 48                      | 0.026         | N/M                  |
| APSWPA6028S3R3□TF | 3.3        | 3.48                | 3.80 | 4.15               | 4.50 | 41                      | 0.033         | N/M                  |
| APSWPA6028S4R7□TF | 4.7        | 3.08                | 3.40 | 3.00               | 3.30 | 35                      | 0.039         | N/M                  |
| APSWPA6028S5R1□TF | 5.1        | 2.60                | 2.80 | 3.20               | 3.50 | 32                      | 0.056         | N/M                  |
| APSWPA6028S6R2MTF | 6.2        | 2.40                | 2.60 | 3.05               | 3.30 | 30                      | 0.061         | M                    |
| APSWPA6028S6R8MTF | 6.8        | 2.40                | 2.60 | 2.60               | 3.00 | 27                      | 0.061         | M                    |
| APSWPA6028S8R2MTF | 8.2        | 2.25                | 2.50 | 2.30               | 2.50 | 24                      | 0.072         | M                    |
| APSWPA6028S9R1MTF | 9.1        | 2.15                | 2.40 | 2.55               | 2.80 | 24                      | 0.096         | M                    |

## Electrical Characteristics

## ● APSWP6028 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | Irms                |      | Isat               |      | S.R.F                   | DCR           |                      |
| APSWPA6028S100MTF | 10         | 1.95                | 2.40 | 2.04               | 2.50 | 23                      | 0.094         | M                    |
| APSWPA6028S120MTF | 12         | 1.85                | 2.00 | 1.80               | 2.00 | 18                      | 0.104         | M                    |
| APSWPA6028S150MTF | 15         | 1.45                | 1.60 | 1.75               | 1.90 | 18                      | 0.163         | M                    |
| APSWPA6028S180MTF | 18         | 1.45                | 1.60 | 1.52               | 1.80 | 15                      | 0.156         | M                    |
| APSWPA6028S220MTF | 22         | 1.40                | 1.60 | 1.45               | 1.80 | 14                      | 0.182         | M                    |
| APSWPA6028S270MTF | 27         | 1.32                | 1.40 | 1.50               | 1.60 | 13                      | 0.202         | M                    |
| APSWPA6028S330MTF | 33         | 1.22                | 1.30 | 1.35               | 1.50 | 12                      | 0.241         | M                    |
| APSWPA6028S360MTF | 36         | 1.13                | 1.20 | 1.25               | 1.40 | 11                      | 0.280         | M                    |
| APSWPA6028S390MTF | 39         | 1.10                | 1.20 | 1.25               | 1.40 | 11                      | 0.293         | M                    |
| APSWPA6028S470MTF | 47         | 1.06                | 1.10 | 1.15               | 1.30 | 9.5                     | 0.410         | M                    |
| APSWPA6028S560MTF | 56         | 0.89                | 1.00 | 1.05               | 1.20 | 8.2                     | 0.449         | M                    |
| APSWPA6028S680MTF | 68         | 0.86                | 0.95 | 0.80               | 0.95 | 7.7                     | 0.468         | M                    |
| APSWPA6028S750MTF | 75         | 0.81                | 0.90 | 0.90               | 0.99 | 7.7                     | 0.533         | M                    |
| APSWPA6028S820MTF | 82         | 0.70                | 0.77 | 0.80               | 0.88 | 7.7                     | 0.650         | M                    |
| APSWPA6028S101MTF | 100        | 0.70                | 0.77 | 0.65               | 0.71 | 7.1                     | 0.650         | M                    |
| APSWPA6028S401MTF | 400        | 0.40                | 0.45 | 0.30               | 0.33 | 2.8                     | 2.808         | M                    |
| APSWPA6028S102MTF | 1000       | 0.23                | 0.26 | 0.18               | 0.22 | 1.5                     | 7.540         | M                    |

## ● APSWP6040 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | Irms                |      | Isat               |      | S.R.F                   | DCR           |                      |
| APSWPA6040S100MTF | 10         | 2.45                | 2.80 | 3.20               | 3.50 | 16                      | 0.062         | M                    |
| APSWPA6040S150MTF | 15         | 2.05                | 2.35 | 2.50               | 3.00 | 13                      | 0.088         | M                    |

## ● APSWP6045 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |       | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|-------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ.  | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |       | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | Irms                |      | Isat               |       | S.R.F                   | DCR           |                      |
| APSWPA6045SR47□TF | 0.47       | 6.50                | 6.60 | 15.00              | 16.50 | 155                     | 0.008         | N / M                |
| APSWPA6045SR56□TF | 0.56       | 6.50                | 6.60 | 14.00              | 15.00 | 142                     | 0.008         | N / M                |
| APSWPA6045SR68□TF | 0.68       | 5.70                | 6.50 | 11.00              | 12.00 | 99                      | 0.008         | N / M                |
| APSWPA6045SR82□TF | 0.82       | 5.90                | 6.50 | 10.35              | 11.00 | 140                     | 0.010         | N / M                |
| APSWPA6045S1R0□TF | 1          | 5.14                | 5.60 | 9.85               | 10.00 | 100                     | 0.014         | N / M                |
| APSWPA6045S1R2□TF | 1.2        | 5.40                | 5.90 | 8.35               | 9.10  | 100                     | 0.013         | N / M                |
| APSWPA6045S1R3□TF | 1.3        | 5.40                | 5.90 | 8.35               | 9.10  | 100                     | 0.013         | N / M                |

## Electrical Characteristics

## ● APSWP6045 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA6045S1R5□TF | 1.5        | 4.95                | 5.40 | 8.80               | 9.70 | 65                      | 0.016         | N/M                  |
| APSWPA6045S1R8□TF | 1.8        | 4.95                | 5.40 | 7.60               | 8.40 | 74                      | 0.016         | N/M                  |
| APSWPA6045S2R2□TF | 2.2        | 4.60                | 5.00 | 6.75               | 7.40 | 52                      | 0.023         | N/M                  |
| APSWPA6045S2R3□TF | 2.3        | 3.50                | 3.80 | 6.00               | 6.60 | 60                      | 0.027         | N/M                  |
| APSWPA6045S2R7□TF | 2.7        | 4.30                | 4.70 | 5.75               | 6.30 | 38                      | 0.020         | N/M                  |
| APSWPA6045S3R0□TF | 3          | 3.80                | 4.20 | 5.60               | 6.20 | 35                      | 0.026         | N/M                  |
| APSWPA6045S3R3□TF | 3.3        | 3.70                | 4.00 | 5.90               | 6.20 | 32                      | 0.027         | N/M                  |
| APSWPA6045S3R6□TF | 3.6        | 3.70                | 4.00 | 5.25               | 5.70 | 28                      | 0.027         | N/M                  |
| APSWPA6045S4R3MTF | 4.3        | 3.50                | 3.80 | 4.45               | 4.90 | 23                      | 0.030         | M                    |
| APSWPA6045S4R5MTF | 4.5        | 3.30                | 3.60 | 4.97               | 5.50 | 24                      | 0.034         | M                    |
| APSWPA6045S4R7MTF | 4.7        | 3.30                | 3.60 | 4.97               | 5.50 | 24                      | 0.034         | M                    |
| APSWPA6045S5R1MTF | 5.1        | 3.30                | 3.60 | 4.40               | 4.80 | 23                      | 0.034         | M                    |
| APSWPA6045S5R6MTF | 5.6        | 3.15                | 3.40 | 4.15               | 4.60 | 23                      | 0.038         | M                    |
| APSWPA6045S6R2MTF | 6.2        | 3.00                | 3.30 | 4.43               | 4.80 | 26                      | 0.040         | M                    |
| APSWPA6045S6R3MTF | 6.3        | 3.00                | 3.30 | 4.43               | 4.70 | 26                      | 0.040         | M                    |
| APSWPA6045S6R8MTF | 6.8        | 3.00                | 3.30 | 3.90               | 4.30 | 20                      | 0.040         | M                    |
| APSWPA6045S7R5MTF | 7.5        | 2.90                | 3.20 | 3.50               | 3.80 | 18                      | 0.044         | M                    |
| APSWPA6045S8R2MTF | 8.2        | 2.60                | 2.80 | 3.90               | 4.30 | 21                      | 0.060         | M                    |
| APSWPA6045S9R1MTF | 9.1        | 2.60                | 2.80 | 3.35               | 3.70 | 17                      | 0.056         | M                    |
| APSWPA6045S100MTF | 10         | 2.45                | 2.70 | 3.20               | 3.50 | 15                      | 0.062         | M                    |
| APSWPA6045S120MTF | 12         | 2.20                | 2.40 | 2.80               | 3.00 | 13                      | 0.075         | M                    |
| APSWPA6045S150MTF | 15         | 2.05                | 2.20 | 2.50               | 2.70 | 12                      | 0.088         | M                    |
| APSWPA6045S180MTF | 18         | 1.85                | 2.00 | 2.20               | 2.40 | 10                      | 0.105         | M                    |
| APSWPA6045S220MTF | 22         | 1.80                | 2.00 | 2.05               | 2.20 | 10                      | 0.116         | M                    |
| APSWPA6045S270MTF | 27         | 1.65                | 1.80 | 1.90               | 2.10 | 9.2                     | 0.133         | M                    |
| APSWPA6045S300MTF | 30         | 1.50                | 1.60 | 1.70               | 1.80 | 7.8                     | 0.172         | M                    |
| APSWPA6045S330MTF | 33         | 1.45                | 1.60 | 1.65               | 1.80 | 7.8                     | 0.178         | M                    |
| APSWPA6045S360MTF | 36         | 1.40                | 1.50 | 1.62               | 1.80 | 7.8                     | 0.225         | M                    |
| APSWPA6045S390MTF | 39         | 1.25                | 1.40 | 1.50               | 1.60 | 7.8                     | 0.234         | M                    |
| APSWPA6045S430MTF | 43         | 1.20                | 1.30 | 1.63               | 1.80 | 7.7                     | 0.260         | M                    |
| APSWPA6045S470MTF | 47         | 1.20                | 1.30 | 1.40               | 1.50 | 6.4                     | 0.260         | M                    |
| APSWPA6045S510MTF | 51         | 1.15                | 1.20 | 1.35               | 1.50 | 6.4                     | 0.269         | M                    |
| APSWPA6045S560MTF | 56         | 1.10                | 1.20 | 1.30               | 1.40 | 6.4                     | 0.287         | M                    |
| APSWPA6045S620MTF | 62         | 1.10                | 1.20 | 1.25               | 1.40 | 6.4                     | 0.306         | M                    |
| APSWPA6045S680MTF | 68         | 1.00                | 1.10 | 1.20               | 1.30 | 6.4                     | 0.376         | M                    |
| APSWPA6045S750MTF | 75         | 0.95                | 1.00 | 1.15               | 1.20 | 5                       | 0.397         | M                    |
| APSWPA6045S820MTF | 82         | 0.90                | 0.99 | 1.05               | 1.10 | 4.9                     | 0.500         | M                    |
| APSWPA6045S910MTF | 91         | 0.85                | 0.94 | 1.00               | 1.10 | 4.9                     | 0.467         | M                    |
| APSWPA6045S101MTF | 100        | 0.80                | 0.88 | 0.95               | 1.00 | 4.2                     | 0.563         | M                    |
| APSWPA6045S121MTF | 120        | 0.77                | 0.85 | 0.85               | 0.94 | 4.2                     | 0.629         | M                    |



## Electrical Characteristics

## ● APSWP6045 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA6045S151MTF | 150        | 0.70                | 0.77 | 0.80               | 0.88 | 4.2                     | 0.754         | M                    |
| APSWPA6045S221MTF | 220        | 0.59                | 0.65 | 0.70               | 0.77 | 3.5                     | 1.084         | M                    |
| APSWPA6045S331MTF | 330        | 0.57                | 0.63 | 0.57               | 0.63 | 2.8                     | 1.651         | M                    |
| APSWPA6045S471MTF | 470        | 0.42                | 0.48 | 0.50               | 0.56 | 2                       | 2.340         | M                    |
| APSWPA6045S681MTF | 680        | 0.33                | 0.38 | 0.42               | 0.46 | 1.7                     | 3.250         | M                    |
| APSWPA6045S102MTF | 1000       | 0.30                | 0.35 | 0.30               | 0.35 | 1.3                     | 5.850         | M                    |

## ● APSWP8040 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |       | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|-------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ.  | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |       | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |       | S.R.F                   | DCR           |                      |
| APSWPA8040SR82□TF | 0.82       | 6.30                | 6.90 | 13.80              | 16.00 | 94                      | 0.010         | N/M                  |
| APSWPA8040S1R0□TF | 1          | 6.30                | 6.90 | 9.85               | 14.00 | 89                      | 0.010         | N/M                  |
| APSWPA8040S1R2□TF | 1.2        | 5.65                | 6.20 | 10.00              | 14.00 | 59                      | 0.013         | N/M                  |
| APSWPA8040S1R5□TF | 1.5        | 5.65                | 6.20 | 8.15               | 11.00 | 67                      | 0.013         | N/M                  |
| APSWPA8040S2R0□TF | 2          | 5.15                | 5.60 | 9.25               | 10.00 | 43                      | 0.016         | N/M                  |
| APSWPA8040S2R2□TF | 2.2        | 5.15                | 5.60 | 7.10               | 8.00  | 41                      | 0.016         | N/M                  |
| APSWPA8040S3R0□TF | 3          | 4.70                | 5.20 | 6.10               | 7.00  | 32                      | 0.018         | N/M                  |
| APSWPA8040S3R3□TF | 3.3        | 4.40                | 4.80 | 6.50               | 7.00  | 27                      | 0.022         | N/M                  |
| APSWPA8040S3R6□TF | 3.6        | 4.35                | 4.80 | 7.52               | 8.50  | 30                      | 0.022         | N/M                  |
| APSWPA8040S3R9□TF | 3.9        | 4.35                | 4.80 | 5.75               | 6.50  | 26                      | 0.022         | N/M                  |
| APSWPA8040S4R7□TF | 4.7        | 4.10                | 4.50 | 5.90               | 6.50  | 24                      | 0.025         | N/M                  |
| APSWPA8040S5R1□TF | 5.1        | 4.05                | 4.40 | 4.70               | 5.40  | 22                      | 0.025         | N/M                  |
| APSWPA8040S5R6□TF | 5.6        | 3.85                | 4.20 | 6.00               | 6.90  | 24                      | 0.027         | N/M                  |
| APSWPA8040S6R2□TF | 6.2        | 3.85                | 4.20 | 4.45               | 5.10  | 20                      | 0.027         | N/M                  |
| APSWPA8040S6R8MTF | 6.8        | 3.60                | 4.00 | 4.55               | 5.20  | 20                      | 0.031         | M                    |
| APSWPA8040S8R2MTF | 8.2        | 3.45                | 3.80 | 4.20               | 4.80  | 17                      | 0.034         | M                    |
| APSWPA8040S100MTF | 10         | 3.30                | 3.60 | 3.60               | 4.10  | 15                      | 0.038         | M                    |
| APSWPA8040S120MTF | 12         | 2.80                | 3.00 | 3.50               | 4.00  | 13                      | 0.053         | M                    |
| APSWPA8040S150MTF | 15         | 2.60                | 2.80 | 2.95               | 3.40  | 12                      | 0.061         | M                    |
| APSWPA8040S180MTF | 18         | 2.40                | 2.60 | 2.70               | 3.10  | 11                      | 0.069         | M                    |
| APSWPA8040S220MTF | 22         | 2.10                | 2.30 | 2.40               | 2.70  | 9.5                     | 0.090         | M                    |
| APSWPA8040S270MTF | 27         | 2.00                | 2.20 | 2.15               | 2.50  | 9.2                     | 0.101         | M                    |
| APSWPA8040S330MTF | 33         | 1.80                | 2.00 | 2.05               | 2.40  | 7.8                     | 0.126         | M                    |
| APSWPA8040S360MTF | 36         | 1.75                | 1.90 | 2.00               | 2.30  | 7.8                     | 0.133         | M                    |
| APSWPA8040S390MTF | 39         | 1.70                | 1.90 | 1.95               | 2.20  | 7.8                     | 0.139         | M                    |
| APSWPA8040S430MTF | 43         | 1.65                | 1.80 | 1.90               | 2.20  | 7.8                     | 0.147         | M                    |
| APSWPA8040S470MTF | 47         | 1.55                | 1.70 | 1.75               | 2.00  | 6.4                     | 0.177         | M                    |

## Electrical Characteristics

## ● APSWP8040 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |      | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA8040S510MTF | 51         | 1.50                | 1.60 | 1.70               | 1.90 | 6.4                     | 0.185         | M                    |
| APSWPA8040S560MTF | 56         | 1.45                | 1.60 | 1.55               | 1.70 | 6.4                     | 0.192         | M                    |
| APSWPA8040S620MTF | 62         | 1.30                | 1.40 | 1.50               | 1.60 | 6.4                     | 0.237         | M                    |
| APSWPA8040S680MTF | 68         | 1.25                | 1.40 | 1.45               | 1.60 | 4.9                     | 0.255         | M                    |
| APSWPA8040S750MTF | 75         | 1.20                | 1.30 | 1.35               | 1.50 | 4.9                     | 0.274         | M                    |
| APSWPA8040S820MTF | 82         | 1.15                | 1.20 | 1.30               | 1.40 | 5.9                     | 0.293         | M                    |
| APSWPA8040S910MTF | 91         | 1.05                | 1.10 | 1.20               | 1.30 | 4.9                     | 0.354         | M                    |
| APSWPA8040S101MTF | 100        | 1.00                | 1.10 | 1.15               | 1.30 | 4.2                     | 0.377         | M                    |
| APSWPA8040S121MTF | 120        | 0.95                | 1.00 | 1.05               | 1.10 | 3.5                     | 0.434         | M                    |
| APSWPA8040S151MTF | 150        | 0.85                | 0.94 | 1.10               | 1.20 | 3.5                     | 0.533         | M                    |
| APSWPA8040S181MTF | 180        | 0.83                | 0.92 | 0.95               | 1.15 | 3.5                     | 0.676         | M                    |
| APSWPA8040S221MTF | 220        | 0.80                | 0.88 | 0.85               | 0.94 | 3.5                     | 0.779         | M                    |
| APSWPA8040S331MTF | 330        | 0.64                | 0.70 | 0.68               | 0.75 | 2.8                     | 1.156         | M                    |
| APSWPA8040S471MTF | 470        | 0.50                | 0.60 | 0.60               | 0.70 | 2.1                     | 1.625         | M                    |

## ● APSWP8065 Series

| Part Number       | Inductance | Heat Rating Current |      | Saturation Current |       | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|------------|---------------------|------|--------------------|-------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V | Max.                | Typ. | Max.               | Typ.  | Min.                    | Max.          |                      |
| Units             | μH         | A                   |      | A                  |       | MHz                     | Ω             | M=±20%<br>N=±30%     |
| Symbol            | L          | I <sub>rms</sub>    |      | I <sub>sat</sub>   |       | S.R.F                   | DCR           |                      |
| APSWPA8065SR68MTF | 0.68       | 7.50                | 8.50 | 24.00              | 26.00 | 100                     | 0.008         | M                    |
| APSWPA8065S1R0MTF | 1          | 7.00                | 8.00 | 20.00              | 22.00 | 96                      | 0.011         | M                    |
| APSWPA8065S2R2MTF | 2.2        | 5.20                | 4.50 | 13.80              | 12.00 | 45                      | 0.016         | M                    |
| APSWPA8065S3R3MTF | 3.3        | 5.10                | 5.90 | 9.50               | 10.00 | 27                      | 0.018         | M                    |
| APSWPA8065S4R7MTF | 4.7        | 4.70                | 5.40 | 8.50               | 9.50  | 18                      | 0.022         | M                    |
| APSWPA8065S5R6MTF | 5.6        | 4.50                | 5.20 | 8.00               | 9.00  | 17                      | 0.026         | M                    |
| APSWPA8065S6R8MTF | 6.8        | 4.50                | 5.20 | 7.50               | 8.00  | 16                      | 0.026         | M                    |
| APSWPA8065S8R2MTF | 8.2        | 4.20                | 4.80 | 7.00               | 7.70  | 15                      | 0.031         | M                    |
| APSWPA8065S100MTF | 10         | 3.20                | 3.70 | 8.00               | 8.90  | 13                      | 0.044         | M                    |
| APSWPA8065S150MTF | 15         | 3.25                | 3.75 | 5.70               | 6.70  | 10                      | 0.053         | M                    |
| APSWPA8065S220MTF | 22         | 2.70                | 3.10 | 4.30               | 4.80  | 8                       | 0.072         | M                    |
| APSWPA8065S470MTF | 47         | 1.85                | 2.15 | 3.40               | 3.70  | 7                       | 0.152         | M                    |
| APSWPA8065S560MTF | 56         | 1.35                | 1.55 | 3.20               | 3.70  | 6                       | 0.198         | M                    |
| APSWPA8065S680MTF | 68         | 1.55                | 1.80 | 2.70               | 3.20  | 5                       | 0.218         | M                    |
| APSWPA8065S101MTF | 100        | 1.35                | 1.45 | 2.00               | 2.40  | 3.1                     | 0.280         | M                    |
| APSWPA8065S151MTF | 150        | 0.95                | 1.10 | 1.60               | 2.00  | 2.5                     | 0.440         | M                    |
| APSWPA8065S221MTF | 220        | 0.80                | 0.90 | 1.20               | 1.50  | 2                       | 0.656         | M                    |
| APSWPA8065S331MTF | 330        | 0.75                | 0.85 | 1.00               | 1.20  | 1.7                     | 0.840         | M                    |
| APSWPA8065S471MTF | 470        | 0.55                | 0.65 | 1.00               | 1.20  | 1.4                     | 1.560         | M                    |

## Electrical Characteristics

## ● APSWP8065 Series

| Part Number       | Inductance    | Heat Rating Current |      | Saturation Current |      | Self-resonant Frequency | DC Resistance | Inductance Tolerance |
|-------------------|---------------|---------------------|------|--------------------|------|-------------------------|---------------|----------------------|
|                   | @100kHz,1V    | Max.                | Typ. | Max.               | Typ. | Min.                    | Max.          |                      |
| Units             | $\mu\text{H}$ | A                   |      | A                  |      | MHz                     | $\Omega$      | M=±20%<br>N=±30%     |
| Symbol            | L             | I <sub>rms</sub>    |      | I <sub>sat</sub>   |      | S.R.F                   | DCR           |                      |
| APSWPA8065S681MTF | 680           | 0.52                | 0.60 | 0.85               | 1.00 | 1                       | 1.944         |                      |
| APSWPA8065S102MTF | 1000          | 0.40                | 0.45 | 0.65               | 0.73 | 1.1                     | 2.820         | M                    |

△1: All test data is referenced to 20°C ambient;

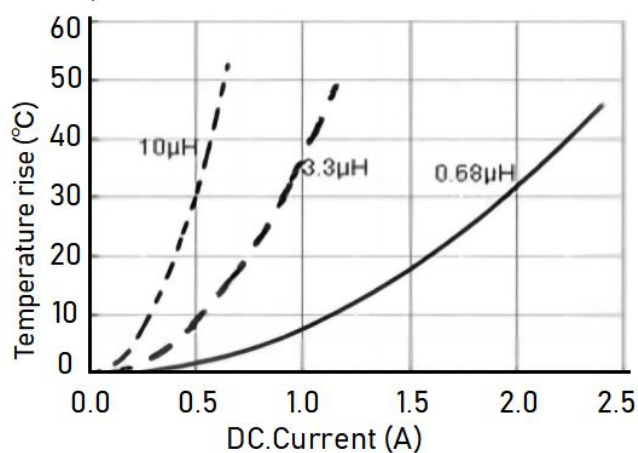
△2: Rated current: I<sub>sat</sub> or I<sub>rms</sub>, whichever is smaller;

△3: I<sub>rms</sub>: DC current that causes the temperature rise ( $\Delta T = 40^\circ\text{C}$ ) from 20°C ambient.

## TYPICAL ELECTRICAL CHARACTERISTICS

## APSWPA252010 Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



TYPICAL ELECTRICAL CHARACTERISTICS

APSWPA252012 Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



APSWPA3010 Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

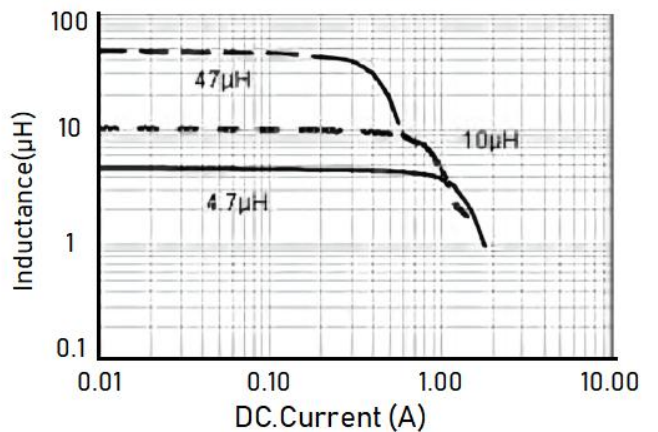


APSWPA3012 Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



**TYPICAL ELECTRICAL CHARACTERISTICS**

**APSWPA3015 Series**

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



**APSWPA4010 Series**

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



**APSWPA4012 Series**

Temperature vs. DC Current Characteristics



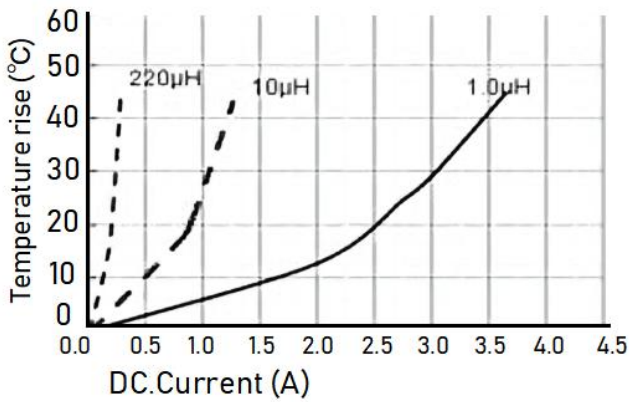
Inductance vs. DC Current Characteristics



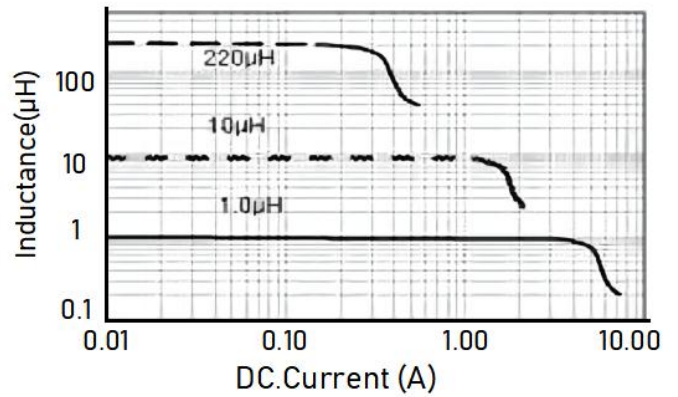
**TYPICAL ELECTRICAL CHARACTERISTICS**

**APSWPA4018 Series**

Temperature vs. DC Current Characteristics

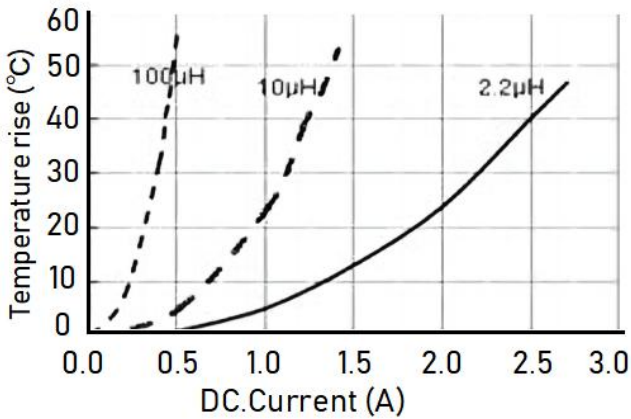


Inductance vs. DC Current Characteristics

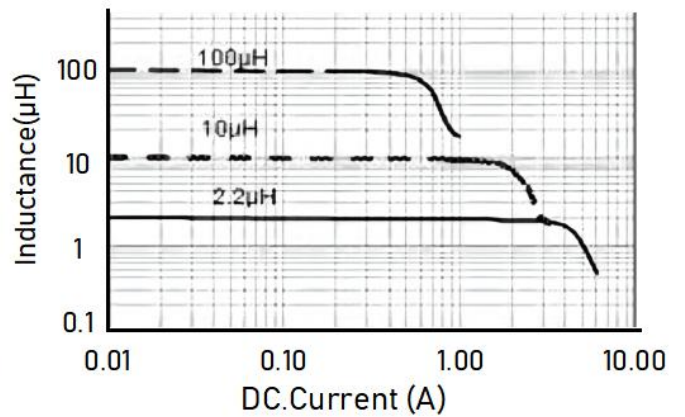


**APSWPA4020 Series**

Temperature vs. DC Current Characteristics

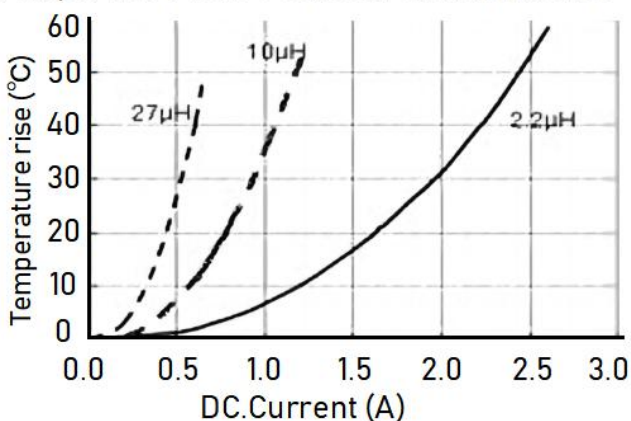


Inductance vs. DC Current Characteristics

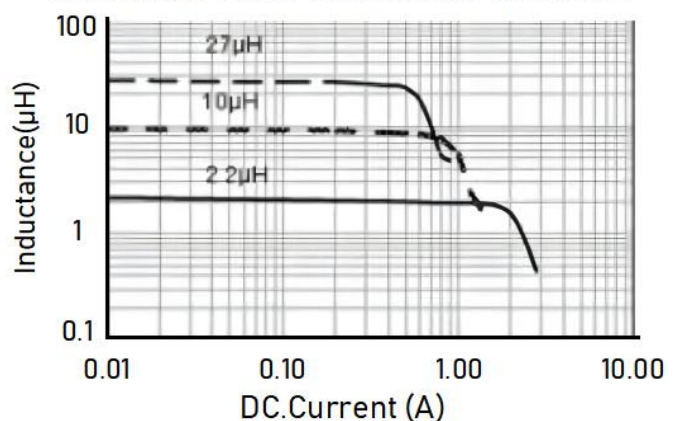


**APSWPA4030 Series**

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



**TYPICAL ELECTRICAL CHARACTERISTICS**

**APSWPA5012 Series**

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



**APSWPA5020 Series**

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



**APSWPA5040 Series**

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



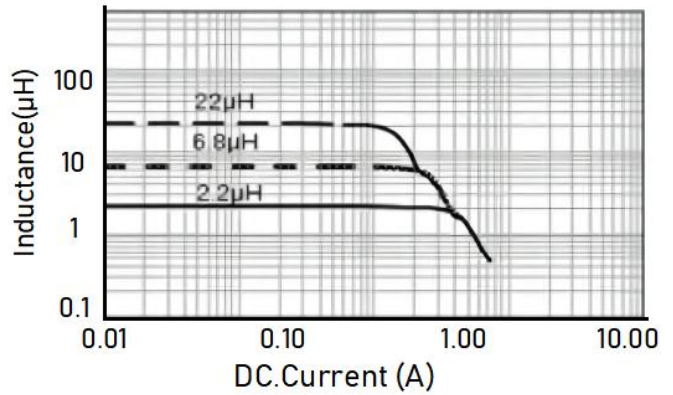
**TYPICAL ELECTRICAL CHARACTERISTICS**

**APSWPA6020 Series**

Temperature vs. DC Current Characteristics

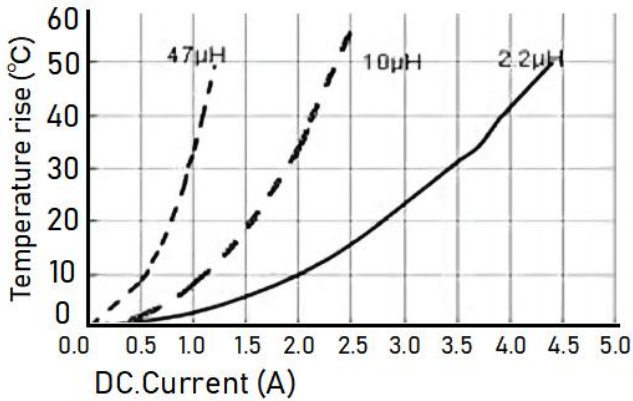


Inductance vs. DC Current Characteristics



**APSWPA6028 Series**

Temperature vs. DC Current Characteristics

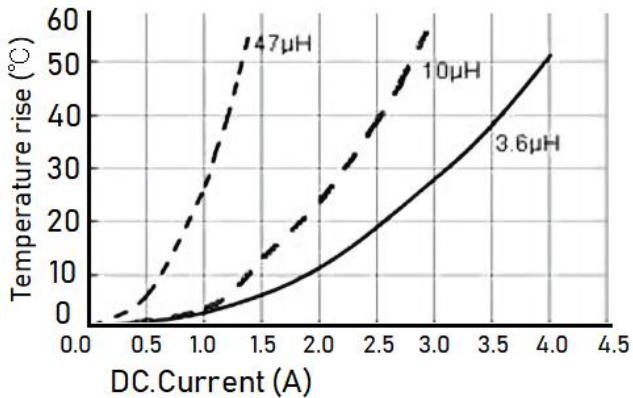


Inductance vs. DC Current Characteristics

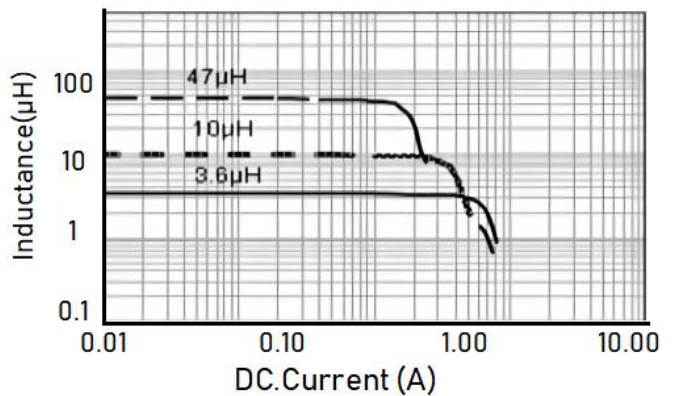


**APSWPA6045 Series**

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics





## TYPICAL ELECTRICAL CHARACTERISTICS

## APSWPA8040 Series

Temperature vs. DC Current Characteri



Inductance vs. DC Current Characteristics

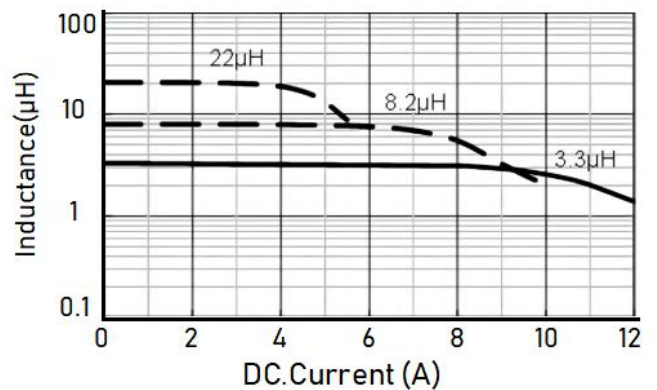


## APSWPA8065 Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



## Note:

This series product is not applies in automotive or related products. Otherwise, we will shall not bear than the resulting all the problems of quality and responsibility.

Please be sure to request approval specifications that provide further details of the products. Kindly not that the content of these specifications are subject to change or may be discontinued without prior notice. This product may not be designed/used in medical or high risk applications without APV approval.

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