

# Wire Wound SMD Power Inductors – SWPA Series

Operating temperature range: -40°C~+125°C (Including self-heating)



## FEATURES

- Magnetic-resin shielded construction reduces buzz noise to ultra-low levels
- Metallization on ferrite core results in excellent shock resistance and damage-free durability
- Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI)
- 30% higher current rating than conventional inductors of equal size
- Takes up less PCB real estate and save more power

## APPLICATIONS

- Smart phone, smart TV, set top box, notebook
- Car navigation systems, telecomm base stations
- VR, AR
- LED lighting

## PRODUCT IDENTIFICATION

| <u>SWPA</u><br>①       | <u>3012</u><br>②              | <u>S</u><br>③                      | <u>1R0</u><br>④ | <u>N</u><br>⑤ | <u>T</u><br>⑥ | <u>□□□</u><br>⑦ |  |
|------------------------|-------------------------------|------------------------------------|-----------------|---------------|---------------|-----------------|--|
| ① Type                 |                               | ② External Dimensions (LxWxH) [mm] |                 |               |               |                 |  |
| SWPA                   | Wire Wound SMD Power Inductor |                                    | 252010          |               | 2.5x2.0x1.0   |                 |  |
| ③ Feature Type         |                               | 3012                               |                 | 252012        |               | 2.5x2.0x1.2     |  |
| S                      | Standard                      |                                    | 3010            |               | 3.0x3.0x1.0   |                 |  |
| ④ Nominal Inductance   |                               | 3015                               |                 | 3012          |               | 3.0x3.0x1.2     |  |
| Example                | Nominal Value                 |                                    | 4010            |               | 3.0x3.0x1.5   |                 |  |
| 1R0                    | 1.0μH                         |                                    | 4012            |               | 4.0x4.0x1.0   |                 |  |
| 100                    | 10μH                          |                                    | 4018            |               | 4.0x4.0x1.2   |                 |  |
| ⑤ Inductance Tolerance |                               | 4020                               |                 | 4030          |               | 4.0x4.0x2.0     |  |
| K                      | ±10%                          |                                    | 4030            |               | 4.0x4.0x3.0   |                 |  |
| M                      | ±20%                          |                                    | 5012            |               | 5.0x5.0x1.2   |                 |  |
| N                      | ±30%                          |                                    | 5020            |               | 5.0x5.0x2.0   |                 |  |
| ⑥ Packing              |                               | 5040                               |                 | 5040          |               | 5.0x5.0x4.0     |  |
| T                      | Tape Carrier Package          |                                    | 5045            |               | 5.0x5.0x4.5   |                 |  |
| ⑦ Design Code          |                               | 6012                               |                 | 6012          |               | 6.0x6.0x1.2     |  |
| □□□                    | Standard product is blank     |                                    | 6020            |               | 6.0x6.0x2.0   |                 |  |
|                        |                               | 6028                               |                 | 6028          |               | 6.0x6.0x2.8     |  |
|                        |                               | 6045                               |                 | 6045          |               | 6.0x6.0x4.5     |  |
|                        |                               | 8040                               |                 | 8040          |               | 8.0x8.0x4.0     |  |
|                        |                               | 8060                               |                 | 8060          |               | 8.0x8.0x6.0     |  |
|                        |                               | 8065                               |                 | 8065          |               | 8.0x8.0x6.5     |  |

# SHAPE AND DIMENSIONS

Fig.1



Fig.2



Fig.3



Recommended Land Pattern

Unit: mm

| Series      | Shape | A       | B       | C        | D       | E        | F        | a Typ. | b Typ. | c Typ. |
|-------------|-------|---------|---------|----------|---------|----------|----------|--------|--------|--------|
| SWPA252010S | Fig.1 | 2.5±0.1 | 2.0±0.1 | 1.0 Max. | 2.0±0.2 | 0.80±0.2 | 0.80±0.2 | 0.80   | 0.85   | 2.0    |
| SWPA252012S | Fig.1 | 2.5±0.1 | 2.0±0.1 | 1.2 Max. | 2.0±0.2 | 0.80±0.2 | 0.80±0.2 | 0.80   | 0.85   | 2.0    |
| SWPA3010S   | Fig.2 | 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    |
| SWPA3012S   | Fig.2 | 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    |
| SWPA3015S   | Fig.2 | 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    |
| SWPA4010S   | Fig.2 | 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    |
| SWPA4012S   | Fig.2 | 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    |
| SWPA4018S   | Fig.2 | 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    |
| SWPA4020S   | Fig.2 | 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    |
| SWPA4030S   | Fig.2 | 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    |
| SWPA5012S   | Fig.3 | 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    |
| SWPA5020S   | Fig.3 | 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    |
| SWPA5040S   | Fig.3 | 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    |
| SWPA5045S   | Fig.3 | 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    |
| SWPA6020S   | Fig.2 | 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    |
| SWPA6028S   | Fig.2 | 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    |
| SWPA6045S   | Fig.2 | 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    |
| SWPA8040S   | Fig.2 | 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    |
| SWPA8060S   | Fig.2 | 8.0±0.3 | 8.0±0.3 | 6.0 Max. | 6.3±0.3 | 2.00±0.3 | 4.0±0.3  | 3.8    | 2.2    | 7.5    |
| SWPA8065S   | Fig.3 | 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    |

※\*1: All products are printed with Marking except the 252010S, 252012S, 3010S, 3012S and 3015S series.

## SPECIFICATIONS

### SWPA252010S Series

| Part Number      | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|------------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                  | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units            | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol           | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA252010SR47NT | 0.47±30%   | 0.056         | 0.047 | 206                     | 2.50                             | 3.35 | 2.35                              | 2.56 |
| SWPA252010SR56NT | 0.56±30%   | 0.072         | 0.060 | 160                     | 2.90                             | 3.20 | 2.00                              | 2.18 |
| SWPA252010SR68NT | 0.68±30%   | 0.074         | 0.062 | 129                     | 2.20                             | 2.75 | 2.00                              | 2.18 |
| SWPA252010S1R0NT | 1.0±30%    | 0.108         | 0.090 | 100                     | 1.85                             | 2.20 | 1.65                              | 1.80 |
| SWPA252010S1R5NT | 1.5±30%    | 0.182         | 0.152 | 81                      | 1.80                             | 2.10 | 1.30                              | 1.42 |
| SWPA252010S2R2NT | 2.2±30%    | 0.209         | 0.174 | 61                      | 1.20                             | 1.60 | 1.20                              | 1.31 |
| SWPA252010S3R3MT | 3.3±20%    | 0.328         | 0.273 | 47                      | 1.05                             | 1.30 | 0.90                              | 0.98 |
| SWPA252010S4R7MT | 4.7±20%    | 0.563         | 0.469 | 42                      | 0.95                             | 1.15 | 0.70                              | 0.76 |
| SWPA252010S5R6MT | 5.6±20%    | 0.563         | 0.469 | 35                      | 0.80                             | 0.95 | 0.73                              | 0.80 |
| SWPA252010S6R8MT | 6.8±20%    | 0.896         | 0.747 | 31                      | 0.78                             | 0.92 | 0.59                              | 0.64 |
| SWPA252010S100MT | 10±20%     | 1.092         | 0.910 | 27                      | 0.65                             | 0.78 | 0.50                              | 0.55 |

### SWPA252012S Series

| Part Number      | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|------------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                  | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units            | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol           | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA252012SR47NT | 0.47±30%   | 0.061         | 0.047 | 160                     | 3.82                             | 4.27 | 2.15                              | 2.34 |
| SWPA252012SR68NT | 0.68±30%   | 0.074         | 0.057 | 140                     | 3.28                             | 3.68 | 1.95                              | 2.13 |
| SWPA252012S1R0NT | 1.0±30%    | 0.090         | 0.069 | 110                     | 2.59                             | 2.90 | 1.93                              | 2.10 |
| SWPA252012S1R2NT | 1.2±30%    | 0.129         | 0.099 | 100                     | 2.38                             | 2.67 | 1.46                              | 1.59 |
| SWPA252012S1R5MT | 1.5±20%    | 0.147         | 0.113 | 97                      | 2.24                             | 2.51 | 1.40                              | 1.53 |
| SWPA252012S2R2MT | 2.2±20%    | 0.216         | 0.166 | 69                      | 1.85                             | 2.07 | 1.15                              | 1.25 |
| SWPA252012S2R7MT | 2.7±20%    | 0.239         | 0.184 | 63                      | 1.72                             | 1.92 | 1.09                              | 1.19 |
| SWPA252012S3R3MT | 3.3±20%    | 0.264         | 0.203 | 62                      | 1.61                             | 1.80 | 1.04                              | 1.13 |
| SWPA252012S3R6MT | 3.6±20%    | 0.348         | 0.268 | 53                      | 1.46                             | 1.64 | 0.90                              | 0.98 |
| SWPA252012S4R3MT | 4.3±20%    | 0.377         | 0.290 | 51                      | 1.37                             | 1.53 | 0.87                              | 0.95 |
| SWPA252012S4R7MT | 4.7±20%    | 0.377         | 0.290 | 47                      | 1.12                             | 1.25 | 0.84                              | 0.92 |
| SWPA252012S5R1MT | 5.1±20%    | 0.500         | 0.385 | 44                      | 1.23                             | 1.37 | 0.75                              | 0.82 |
| SWPA252012S5R6MT | 5.6±20%    | 0.538         | 0.414 | 38                      | 1.11                             | 1.25 | 0.73                              | 0.80 |
| SWPA252012S6R2MT | 6.2±20%    | 0.542         | 0.417 | 38                      | 1.03                             | 1.16 | 0.73                              | 0.80 |
| SWPA252012S6R8MT | 6.8±20%    | 0.581         | 0.447 | 38                      | 0.98                             | 1.09 | 0.69                              | 0.75 |
| SWPA252012S7R5MT | 7.5±20%    | 0.611         | 0.470 | 35                      | 0.97                             | 1.09 | 0.68                              | 0.74 |
| SWPA252012S8R2MT | 8.2±20%    | 0.658         | 0.506 | 36                      | 0.98                             | 1.10 | 0.65                              | 0.71 |
| SWPA252012S9R1MT | 9.1±20%    | 0.690         | 0.531 | 34                      | 0.91                             | 1.02 | 0.62                              | 0.68 |
| SWPA252012S100MT | 10±20%     | 0.690         | 0.531 | 34                      | 0.79                             | 0.88 | 0.62                              | 0.68 |
| SWPA252012S120MT | 12±20%     | 1.075         | 0.827 | 28                      | 0.78                             | 0.88 | 0.51                              | 0.56 |
| SWPA252012S150MT | 15±20%     | 1.591         | 1.224 | 25                      | 0.68                             | 0.77 | 0.42                              | 0.46 |
| SWPA252012S220MT | 22±20%     | 1.976         | 1.520 | 20                      | 0.53                             | 0.59 | 0.38                              | 0.41 |

# SPECIFICATIONS

## SWPA3010S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA3010S1R0NT | 1.0±30%    | 0.085         | 0.065 | 180                     | 1.40                             | 2.10 | 1.45                              | 1.80 |
| SWPA3010S1R2NT | 1.2±30%    | 0.085         | 0.065 | 137                     | 1.25                             | 1.70 | 1.45                              | 1.80 |
| SWPA3010S1R5NT | 1.5±30%    | 0.104         | 0.080 | 120                     | 1.27                             | 1.70 | 1.30                              | 1.60 |
| SWPA3010S2R2NT | 2.2±30%    | 0.143         | 0.110 | 100                     | 1.15                             | 1.50 | 1.09                              | 1.40 |
| SWPA3010S2R7MT | 2.7±20%    | 0.169         | 0.130 | 90                      | 1.00                             | 1.20 | 1.02                              | 1.40 |
| SWPA3010S3R3NT | 3.3±30%    | 0.189         | 0.145 | 74                      | 0.97                             | 1.20 | 0.96                              | 1.20 |
| SWPA3010S3R6MT | 3.6±20%    | 0.215         | 0.165 | 67                      | 0.95                             | 1.20 | 0.90                              | 1.10 |
| SWPA3010S4R7MT | 4.7±20%    | 0.293         | 0.225 | 59                      | 0.75                             | 1.05 | 0.77                              | 1.10 |
| SWPA3010S5R6MT | 5.6±20%    | 0.322         | 0.248 | 40                      | 0.58                             | 0.65 | 0.70                              | 1.05 |
| SWPA3010S6R8MT | 6.8±20%    | 0.397         | 0.305 | 42                      | 0.55                             | 0.72 | 0.66                              | 0.96 |
| SWPA3010S8R2MT | 8.2±20%    | 0.520         | 0.40  | 23                      | 0.55                             | 0.70 | 0.58                              | 0.70 |
| SWPA3010S100MT | 10±20%     | 0.520         | 0.40  | 39                      | 0.55                             | 0.75 | 0.58                              | 0.70 |
| SWPA3010S120MT | 12±20%     | 0.657         | 0.505 | 36                      | 0.43                             | 0.65 | 0.52                              | 0.67 |
| SWPA3010S150MT | 15±20%     | 0.793         | 0.610 | 30                      | 0.42                             | 0.57 | 0.47                              | 0.57 |
| SWPA3010S220MT | 22±20%     | 1.209         | 0.930 | 28                      | 0.35                             | 0.48 | 0.38                              | 0.52 |
| SWPA3010S270MT | 27±20%     | 1.404         | 1.080 | 25                      | 0.30                             | 0.45 | 0.35                              | 0.50 |
| SWPA3010S330MT | 33±20%     | 2.015         | 1.550 | 18                      | 0.29                             | 0.42 | 0.30                              | 0.55 |
| SWPA3010S390MT | 39±20%     | 2.275         | 1.750 | 18                      | 0.28                             | 0.38 | 0.28                              | 0.53 |
| SWPA3010S430MT | 43±20%     | 2.340         | 1.80  | 18                      | 0.23                             | 0.36 | 0.27                              | 0.52 |
| SWPA3010S470MT | 47±20%     | 2.535         | 1.950 | 18                      | 0.22                             | 0.35 | 0.26                              | 0.52 |
| SWPA3010S510MT | 51±20%     | 2.860         | 2.20  | 18                      | 0.21                             | 0.33 | 0.25                              | 0.48 |
| SWPA3010S560MT | 56±20%     | 3.016         | 2.320 | 16                      | 0.21                             | 0.28 | 0.24                              | 0.35 |

## SWPA3012S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA3012SR22NT | 0.22±30%   | 0.022         | 0.017 | 321                     | 5.30                             | 6.00 | 3.00                              | 3.30 |
| SWPA3012SR82NT | 0.82±30%   | 0.039         | 0.030 | 180                     | 2.05                             | 2.80 | 2.47                              | 3.00 |
| SWPA3012S1R0NT | 1.0±30%    | 0.052         | 0.040 | 120                     | 1.87                             | 2.80 | 2.20                              | 2.70 |
| SWPA3012S1R2NT | 1.2±30%    | 0.059         | 0.045 | 120                     | 2.22                             | 2.50 | 2.01                              | 2.20 |
| SWPA3012S1R5NT | 1.5±30%    | 0.059         | 0.045 | 110                     | 1.62                             | 1.90 | 2.01                              | 2.20 |
| SWPA3012S1R8NT | 1.8±30%    | 0.082         | 0.063 | 90                      | 1.30                             | 1.90 | 1.65                              | 1.80 |
| SWPA3012S2R2NT | 2.2±30%    | 0.098         | 0.075 | 84                      | 1.20                             | 1.90 | 1.55                              | 1.70 |
| SWPA3012S2R4NT | 2.4±30%    | 0.088         | 0.068 | 100                     | 1.15                             | 1.50 | 1.60                              | 1.70 |
| SWPA3012S2R7NT | 2.7±30%    | 0.110         | 0.085 | 65                      | 1.14                             | 1.50 | 1.48                              | 1.50 |
| SWPA3012S3R3MT | 3.3±20%    | 0.130         | 0.10  | 64                      | 1.05                             | 1.50 | 1.36                              | 1.40 |
| SWPA3012S3R6MT | 3.6±20%    | 0.130         | 0.10  | 36                      | 1.05                             | 1.50 | 1.36                              | 1.40 |
| SWPA3012S3R9MT | 3.9±20%    | 0.189         | 0.145 | 61                      | 1.00                             | 1.30 | 1.24                              | 1.30 |
| SWPA3012S4R7MT | 4.7±20%    | 0.156         | 0.120 | 61                      | 0.90                             | 1.00 | 1.24                              | 1.30 |
| SWPA3012S6R8MT | 6.8±20%    | 0.247         | 0.190 | 61                      | 0.75                             | 0.90 | 0.98                              | 1.10 |
| SWPA3012S100MT | 10±20%     | 0.345         | 0.265 | 42                      | 0.60                             | 0.88 | 0.83                              | 0.90 |
| SWPA3012S120MT | 12±20%     | 0.449         | 0.345 | 32                      | 0.48                             | 0.67 | 0.73                              | 0.84 |
| SWPA3012S150MT | 15±20%     | 0.468         | 0.360 | 27                      | 0.45                             | 0.62 | 0.71                              | 0.77 |
| SWPA3012S180MT | 18±20%     | 0.709         | 0.545 | 25                      | 0.43                             | 0.59 | 0.58                              | 0.65 |
| SWPA3012S220MT | 22±20%     | 0.839         | 0.645 | 23                      | 0.42                             | 0.52 | 0.53                              | 0.59 |

## SPECIFICATIONS

### SWPA3012S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>3</sup> |      | Heat Rating Current <sup>4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|---------------------------------|------|----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                            | Typ. | Max.                             | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                               |      | A                                |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                            |      | Irms                             |      |
| SWPA3012S270MT | 27±20%     | 1.131         | 0.870 | 21                      | 0.35                            | 0.48 | 0.47                             | 0.51 |
| SWPA3012S330MT | 33±20%     | 1.138         | 0.875 | 18                      | 0.36                            | 0.46 | 0.46                             | 0.50 |
| SWPA3012S360MT | 36±20%     | 1.235         | 0.950 | 18                      | 0.34                            | 0.44 | 0.44                             | 0.48 |
| SWPA3012S390MT | 39±20%     | 1.729         | 1.330 | 18                      | 0.30                            | 0.39 | 0.37                             | 0.41 |
| SWPA3012S470MT | 47±20%     | 1.885         | 1.450 | 14                      | 0.27                            | 0.35 | 0.35                             | 0.40 |
| SWPA3012S560MT | 56±20%     | 1.794         | 1.380 | 9                       | 0.26                            | 0.33 | 0.28                             | 0.40 |
| SWPA3012S680MT | 68±20%     | 2.171         | 1.670 | 7                       | 0.24                            | 0.29 | 0.33                             | 0.37 |
| SWPA3012S820MT | 82±20%     | 3.302         | 2.540 | 7                       | 0.17                            | 0.27 | 0.27                             | 0.31 |
| SWPA3012S101MT | 100±20%    | 3.718         | 2.860 | 5                       | 0.21                            | 0.23 | 0.25                             | 0.29 |

### SWPA3015S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>3</sup> |      | Heat Rating Current <sup>4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|---------------------------------|------|----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                            | Typ. | Max.                             | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                               |      | A                                |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                            |      | Irms                             |      |
| SWPA3015SR50NT | 0.5±30%    | 0.039         | 0.030 | 162                     | 3.90                            | 4.20 | 2.60                             | 2.80 |
| SWPA3015S1R0NT | 1.0±30%    | 0.039         | 0.030 | 150                     | 2.32                            | 2.80 | 2.35                             | 2.50 |
| SWPA3015S1R2NT | 1.2±30%    | 0.052         | 0.040 | 110                     | 2.21                            | 3.10 | 1.95                             | 2.30 |
| SWPA3015S1R5NT | 1.5±30%    | 0.065         | 0.050 | 100                     | 2.30                            | 2.70 | 1.70                             | 2.20 |
| SWPA3015S1R8NT | 1.8±30%    | 0.065         | 0.050 | 92                      | 1.75                            | 2.20 | 1.70                             | 2.20 |
| SWPA3015S2R2NT | 2.2±30%    | 0.078         | 0.060 | 86                      | 1.60                            | 2.00 | 1.60                             | 2.00 |
| SWPA3015S2R7NT | 2.7±30%    | 0.098         | 0.075 | 64                      | 1.52                            | 1.90 | 1.43                             | 1.90 |
| SWPA3015S3R3MT | 3.3±20%    | 0.104         | 0.080 | 68                      | 1.32                            | 1.81 | 1.36                             | 1.60 |
| SWPA3015S3R6MT | 3.6±20%    | 0.137         | 0.105 | 59                      | 1.28                            | 1.60 | 1.20                             | 1.50 |
| SWPA3015S3R9MT | 3.9±20%    | 0.137         | 0.105 | 47                      | 1.20                            | 1.40 | 1.20                             | 1.50 |
| SWPA3015S4R3MT | 4.3±20%    | 0.150         | 0.115 | 53                      | 1.20                            | 1.40 | 1.14                             | 1.30 |
| SWPA3015S4R7MT | 4.7±20%    | 0.163         | 0.125 | 46                      | 1.10                            | 1.40 | 1.09                             | 1.30 |
| SWPA3015S5R1MT | 5.1±20%    | 0.173         | 0.133 | 49                      | 1.00                            | 1.20 | 1.05                             | 1.20 |
| SWPA3015S6R2MT | 6.2±20%    | 0.254         | 0.195 | 46                      | 1.00                            | 1.20 | 0.86                             | 1.00 |
| SWPA3015S6R8MT | 6.8±20%    | 0.260         | 0.20  | 39                      | 0.85                            | 1.10 | 0.85                             | 1.10 |
| SWPA3015S100MT | 10±20%     | 0.325         | 0.250 | 41                      | 0.72                            | 0.92 | 0.77                             | 0.90 |
| SWPA3015S120MT | 12±20%     | 0.416         | 0.320 | 32                      | 0.70                            | 0.90 | 0.68                             | 0.89 |
| SWPA3015S150MT | 15±20%     | 0.455         | 0.350 | 30                      | 0.66                            | 0.88 | 0.65                             | 0.72 |
| SWPA3015S180MT | 18±20%     | 0.559         | 0.430 | 23                      | 0.56                            | 0.72 | 0.59                             | 0.72 |
| SWPA3015S220MT | 22±20%     | 0.598         | 0.460 | 23                      | 0.52                            | 0.68 | 0.57                             | 0.69 |
| SWPA3015S270MT | 27±20%     | 0.949         | 0.730 | 22                      | 0.48                            | 0.56 | 0.45                             | 0.56 |
| SWPA3015S330MT | 33±20%     | 1.066         | 0.820 | 20                      | 0.44                            | 0.53 | 0.43                             | 0.51 |
| SWPA3015S390MT | 39±20%     | 1.294         | 0.995 | 14                      | 0.41                            | 0.55 | 0.39                             | 0.44 |
| SWPA3015S430MT | 43±20%     | 1.378         | 1.060 | 16                      | 0.37                            | 0.43 | 0.37                             | 0.48 |
| SWPA3015S470MT | 47±20%     | 1.625         | 1.250 | 14                      | 0.35                            | 0.43 | 0.35                             | 0.44 |
| SWPA3015S560MT | 56±20%     | 1.664         | 1.280 | 13                      | 0.33                            | 0.42 | 0.34                             | 0.41 |
| SWPA3015S620MT | 62±20%     | 2.093         | 1.610 | 13                      | 0.30                            | 0.40 | 0.30                             | 0.41 |
| SWPA3015S680MT | 68±20%     | 3.510         | 2.700 | 11                      | 0.28                            | 0.37 | 0.23                             | 0.31 |
| SWPA3015S101MT | 100±20%    | 4.043         | 3.110 | 7.2                     | 0.23                            | 0.25 | 0.21                             | 0.25 |
| SWPA3015S151MT | 150±20%    | 4.940         | 3.80  | 4.5                     | 0.18                            | 0.22 | 0.19                             | 0.23 |

# SPECIFICATIONS

## SWPA4010S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units 单位       | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol 符号      | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA4010S1R0NT | 1.0±30%    | 0.067         | 0.056 | 104                     | 2.00                             | 2.30 | 1.90                              | 2.40 |
| SWPA4010S1R5NT | 1.5±30%    | 0.084         | 0.070 | 71                      | 1.68                             | 2.00 | 1.70                              | 2.00 |
| SWPA4010S2R2MT | 2.2±20%    | 0.102         | 0.085 | 52                      | 1.20                             | 1.50 | 1.50                              | 2.00 |
| SWPA4010S3R3MT | 3.3±20%    | 0.120         | 0.100 | 42                      | 1.10                             | 1.40 | 1.40                              | 1.80 |
| SWPA4010S4R7MT | 4.7±20%    | 0.168         | 0.140 | 30                      | 0.95                             | 1.10 | 1.20                              | 1.50 |
| SWPA4010S6R8MT | 6.8±20%    | 0.240         | 0.200 | 26                      | 0.80                             | 0.95 | 1.00                              | 1.20 |
| SWPA4010S100MT | 10±20%     | 0.360         | 0.300 | 19                      | 0.62                             | 0.75 | 0.75                              | 1.00 |
| SWPA4010S150MT | 15±20%     | 0.516         | 0.430 | 17                      | 0.54                             | 0.61 | 0.60                              | 0.85 |
| SWPA4010S220MT | 22±20%     | 0.684         | 0.570 | 11                      | 0.45                             | 0.52 | 0.50                              | 0.75 |

## SWPA4012S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units 单位       | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol 符号      | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA4012SR82NT | 0.82±30%   | 0.065         | 0.050 | 150                     | 3.02                             | 3.30 | 1.65                              | 2.50 |
| SWPA4012S1R0NT | 1.0±30%    | 0.065         | 0.050 | 120                     | 2.61                             | 3.20 | 1.65                              | 2.50 |
| SWPA4012S1R5NT | 1.5±30%    | 0.085         | 0.065 | 90                      | 2.10                             | 2.70 | 1.46                              | 2.20 |
| SWPA4012S1R8NT | 1.8±30%    | 0.104         | 0.080 | 88                      | 2.12                             | 2.60 | 1.32                              | 1.90 |
| SWPA4012S2R2NT | 2.2±30%    | 0.104         | 0.080 | 74                      | 1.76                             | 2.30 | 1.32                              | 1.90 |
| SWPA4012S2R7NT | 2.7±30%    | 0.117         | 0.090 | 71                      | 1.90                             | 2.30 | 1.25                              | 1.70 |
| SWPA4012S3R3NT | 3.3±30%    | 0.143         | 0.110 | 60                      | 1.72                             | 2.10 | 1.12                              | 1.60 |
| SWPA4012S3R6NT | 3.6±30%    | 0.143         | 0.110 | 57                      | 1.20                             | 1.70 | 1.12                              | 1.60 |
| SWPA4012S4R3NT | 4.3±30%    | 0.182         | 0.140 | 54                      | 1.58                             | 1.70 | 1.00                              | 1.50 |
| SWPA4012S4R7NT | 4.7±30%    | 0.163         | 0.125 | 50                      | 1.15                             | 1.80 | 1.05                              | 1.50 |
| SWPA4012S5R1NT | 5.1±30%    | 0.201         | 0.155 | 50                      | 1.55                             | 1.60 | 0.95                              | 1.50 |
| SWPA4012S5R6NT | 5.6±30%    | 0.182         | 0.140 | 42                      | 1.00                             | 1.60 | 1.00                              | 1.20 |
| SWPA4012S6R8MT | 6.8±20%    | 0.257         | 0.198 | 40                      | 0.85                             | 1.40 | 0.84                              | 1.20 |
| SWPA4012S100MT | 10±20%     | 0.345         | 0.265 | 33                      | 0.80                             | 1.10 | 0.77                              | 1.00 |
| SWPA4012S120MT | 12±20%     | 0.377         | 0.290 | 32                      | 0.66                             | 1.00 | 0.70                              | 0.95 |
| SWPA4012S150MT | 15±20%     | 0.442         | 0.340 | 25                      | 0.56                             | 0.80 | 0.64                              | 0.85 |
| SWPA4012S180MT | 18±20%     | 0.611         | 0.470 | 23                      | 0.55                             | 0.75 | 0.55                              | 0.80 |
| SWPA4012S220MT | 22±20%     | 0.763         | 0.587 | 20                      | 0.46                             | 0.70 | 0.49                              | 0.75 |
| SWPA4012S270MT | 27±20%     | 0.936         | 0.720 | 18                      | 0.50                             | 0.70 | 0.45                              | 0.60 |
| SWPA4012S330MT | 33±20%     | 1.053         | 0.810 | 17                      | 0.42                             | 0.60 | 0.42                              | 0.58 |
| SWPA4012S360MT | 36±20%     | 1.170         | 0.90  | 14                      | 0.40                             | 0.50 | 0.40                              | 0.56 |
| SWPA4012S390MT | 39±20%     | 1.430         | 1.10  | 16                      | 0.55                             | 0.66 | 0.37                              | 0.50 |
| SWPA4012S470MT | 47±20%     | 1.430         | 1.10  | 12                      | 0.35                             | 0.50 | 0.37                              | 0.50 |
| SWPA4012S560MT | 56±20%     | 1.625         | 1.250 | 11                      | 0.33                             | 0.45 | 0.33                              | 0.46 |
| SWPA4012S680MT | 68±20%     | 2.535         | 1.950 | 11                      | 0.38                             | 0.45 | 0.27                              | 0.45 |
| SWPA4012S820MT | 82±20%     | 2.782         | 2.140 | 11                      | 0.28                             | 0.40 | 0.26                              | 0.36 |
| SWPA4012S101MT | 100±20%    | 2.873         | 2.210 | 9.4                     | 0.25                             | 0.30 | 0.25                              | 0.35 |

# SPECIFICATIONS

## SWPA4018S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA4018SR47NT | 0.47±30%   | 0.018         | 0.014 | 155                     | 4.30                             | 5.20 | 4.00                              | 4.50 |
| SWPA4018SR68NT | 0.68±30%   | 0.026         | 0.020 | 128                     | 4.90                             | 5.60 | 3.30                              | 3.80 |
| SWPA4018S1R0NT | 1.0±30%    | 0.033         | 0.025 | 80                      | 4.80                             | 5.20 | 2.00                              | 3.30 |
| SWPA4018S1R5NT | 1.5±30%    | 0.039         | 0.030 | 65                      | 3.35                             | 4.00 | 1.80                              | 3.20 |
| SWPA4018S1R8NT | 1.8±30%    | 0.044         | 0.034 | 54                      | 3.00                             | 3.40 | 2.00                              | 2.80 |
| SWPA4018S2R2MT | 2.2±20%    | 0.059         | 0.045 | 52                      | 2.70                             | 3.20 | 1.65                              | 2.60 |
| SWPA4018S3R3MT | 3.3±20%    | 0.091         | 0.070 | 44                      | 2.45                             | 2.90 | 1.23                              | 2.10 |
| SWPA4018S4R7MT | 4.7±20%    | 0.117         | 0.090 | 34                      | 1.70                             | 2.20 | 1.20                              | 1.80 |
| SWPA4018S6R8MT | 6.8±20%    | 0.143         | 0.110 | 29                      | 1.45                             | 2.00 | 1.06                              | 1.50 |
| SWPA4018S100MT | 10±20%     | 0.234         | 0.180 | 24                      | 1.30                             | 1.60 | 0.84                              | 1.20 |
| SWPA4018S150MT | 15±20%     | 0.325         | 0.250 | 19                      | 0.94                             | 1.10 | 0.65                              | 1.00 |
| SWPA4018S220MT | 22±20%     | 0.468         | 0.360 | 16                      | 0.80                             | 0.88 | 0.59                              | 0.85 |
| SWPA4018S330MT | 33±20%     | 0.689         | 0.530 | 12                      | 0.56                             | 0.75 | 0.49                              | 0.72 |
| SWPA4018S470MT | 47±20%     | 0.845         | 0.650 | 10                      | 0.57                             | 0.70 | 0.42                              | 0.65 |
| SWPA4018S680MT | 68±20%     | 1.30          | 1.0   | 8.3                     | 0.47                             | 0.51 | 0.32                              | 0.52 |
| SWPA4018S101MT | 100±20%    | 2.275         | 1.750 | 6.5                     | 0.40                             | 0.44 | 0.25                              | 0.41 |
| SWPA4018S151MT | 150±20%    | 3.250         | 2.50  | 5.5                     | 0.31                             | 0.34 | 0.22                              | 0.36 |
| SWPA4018S221MT | 220±20%    | 5.20          | 4.0   | 4                       | 0.27                             | 0.30 | 0.17                              | 0.27 |

## SWPA4020S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA4020SR24MT | 0.24±20%   | 0.014         | 0.011 | 283                     | 10.5                             | 12.5 | 4.50                              | 5.20 |
| SWPA4020SR33NT | 0.33±30%   | 0.016         | 0.013 | 223                     | 7.50                             | 8.50 | 3.30                              | 4.90 |
| SWPA4020SR47NT | 0.47±30%   | 0.029         | 0.022 | 160                     | 7.00                             | 7.50 | 3.30                              | 3.70 |
| SWPA4020SR68NT | 0.68±30%   | 0.036         | 0.028 | 120                     | 6.40                             | 6.60 | 2.80                              | 3.30 |
| SWPA4020S1R0NT | 1.0±30%    | 0.038         | 0.029 | 75                      | 4.78                             | 5.20 | 2.15                              | 3.20 |
| SWPA4020S1R2NT | 1.2±30%    | 0.038         | 0.029 | 72                      | 5.10                             | 5.60 | 2.15                              | 3.20 |
| SWPA4020S1R5NT | 1.5±30%    | 0.046         | 0.035 | 71                      | 4.45                             | 4.90 | 1.98                              | 3.00 |
| SWPA4020S2R2MT | 2.2±20%    | 0.052         | 0.040 | 49                      | 3.40                             | 3.70 | 1.85                              | 2.80 |
| SWPA4020S3R3MT | 3.3±20%    | 0.091         | 0.070 | 44                      | 3.20                             | 3.50 | 1.40                              | 2.50 |
| SWPA4020S3R6MT | 3.6±20%    | 0.072         | 0.055 | 49                      | 2.80                             | 3.00 | 1.54                              | 2.50 |
| SWPA4020S4R7MT | 4.7±20%    | 0.098         | 0.075 | 42                      | 2.35                             | 2.50 | 1.34                              | 2.00 |
| SWPA4020S5R1MT | 5.1±20%    | 0.111         | 0.085 | 42                      | 2.30                             | 2.50 | 1.27                              | 1.80 |
| SWPA4020S5R6MT | 5.6±20%    | 0.117         | 0.090 | 30                      | 2.20                             | 2.40 | 1.22                              | 1.80 |
| SWPA4020S6R2MT | 6.2±20%    | 0.150         | 0.115 | 36                      | 2.15                             | 2.30 | 1.08                              | 1.60 |
| SWPA4020S6R8MT | 6.8±20%    | 0.163         | 0.125 | 33                      | 2.20                             | 2.40 | 1.04                              | 1.60 |
| SWPA4020S7R5MT | 7.5±20%    | 0.150         | 0.115 | 30                      | 1.85                             | 2.00 | 1.08                              | 1.50 |
| SWPA4020S8R2MT | 8.2±20%    | 0.163         | 0.125 | 27                      | 1.75                             | 1.90 | 1.04                              | 1.40 |
| SWPA4020S100MT | 10±20%     | 0.215         | 0.165 | 26                      | 1.60                             | 1.70 | 0.90                              | 1.20 |
| SWPA4020S120MT | 12±20%     | 0.228         | 0.175 | 26                      | 1.50                             | 1.60 | 0.88                              | 1.20 |
| SWPA4020S150MT | 15±20%     | 0.299         | 0.230 | 24                      | 1.35                             | 1.50 | 0.77                              | 1.10 |
| SWPA4020S220MT | 22±20%     | 0.455         | 0.350 | 15                      | 1.05                             | 1.10 | 0.62                              | 0.87 |
| SWPA4020S270MT | 27±20%     | 0.709         | 0.545 | 14                      | 1.02                             | 1.10 | 0.50                              | 0.70 |



# SPECIFICATIONS

## SWPA4020S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>3</sup> |      | Heat Rating Current <sup>4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|---------------------------------|------|----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                            | Typ. | Max.                             | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                               |      | A                                |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                            |      | Irms                             |      |
| SWPA4020S330MT | 33±20%     | 0.715         | 0.550 | 11                      | 0.85                            | 0.93 | 0.49                             | 0.68 |
| SWPA4020S390MT | 39±20%     | 0.845         | 0.650 | 11                      | 0.82                            | 0.90 | 0.46                             | 0.64 |
| SWPA4020S430MT | 43±20%     | 0.858         | 0.660 | 10                      | 0.77                            | 0.85 | 0.45                             | 0.63 |
| SWPA4020S470MT | 47±20%     | 0.923         | 0.710 | 10                      | 0.74                            | 0.81 | 0.44                             | 0.61 |
| SWPA4020S510MT | 51±20%     | 0.975         | 0.750 | 10                      | 0.70                            | 0.77 | 0.42                             | 0.59 |
| SWPA4020S560MT | 56±20%     | 1.040         | 0.80  | 10                      | 0.66                            | 0.72 | 0.41                             | 0.57 |
| SWPA4020S620MT | 62±20%     | 1.170         | 0.90  | 9.6                     | 0.65                            | 0.71 | 0.39                             | 0.52 |
| SWPA4020S680MT | 68±20%     | 1.380         | 1.060 | 7.7                     | 0.61                            | 0.67 | 0.36                             | 0.50 |
| SWPA4020S750MT | 75±20%     | 1.510         | 1.160 | 7.7                     | 0.70                            | 0.77 | 0.35                             | 0.49 |
| SWPA4020S820MT | 82±20%     | 1.520         | 1.170 | 7.2                     | 0.50                            | 0.55 | 0.34                             | 0.47 |
| SWPA4020S101MT | 100±20%    | 2.020         | 1.550 | 6.3                     | 0.48                            | 0.53 | 0.31                             | 0.43 |

## SWPA4030S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>3</sup> |      | Heat Rating Current <sup>4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|---------------------------------|------|----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                            | Typ. | Max.                             | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                               |      | A                                |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                            |      | Irms                             |      |
| SWPA4030SR47NT | 0.47±30%   | 0.0104        | 0.008 | 184                     | 7.80                            | 9.80 | 5.20                             | 5.90 |
| SWPA4030SR68NT | 0.68±30%   | 0.013         | 0.010 | 130                     | 6.80                            | 8.00 | 4.56                             | 5.10 |
| SWPA4030SR91NT | 0.91±30%   | 0.017         | 0.013 | 100                     | 6.25                            | 6.80 | 4.15                             | 4.70 |
| SWPA4030S1R0NT | 1.0±30%    | 0.018         | 0.014 | 70                      | 5.26                            | 5.70 | 4.15                             | 4.70 |
| SWPA4030S1R2NT | 1.2±30%    | 0.020         | 0.015 | 80                      | 5.80                            | 6.30 | 3.82                             | 4.20 |
| SWPA4030S1R5NT | 1.5±30%    | 0.026         | 0.020 | 62                      | 4.84                            | 5.30 | 3.34                             | 3.60 |
| SWPA4030S1R8NT | 1.8±30%    | 0.033         | 0.025 | 60                      | 5.40                            | 5.80 | 3.20                             | 3.30 |
| SWPA4030S2R2NT | 2.2±30%    | 0.039         | 0.030 | 52                      | 4.90                            | 5.80 | 2.95                             | 3.20 |
| SWPA4030S3R3MT | 3.3±20%    | 0.052         | 0.040 | 38                      | 3.30                            | 3.60 | 2.40                             | 2.60 |
| SWPA4030S3R6MT | 3.6±20%    | 0.052         | 0.040 | 37                      | 3.00                            | 3.50 | 2.40                             | 2.60 |
| SWPA4030S3R9MT | 3.9±20%    | 0.074         | 0.057 | 32                      | 3.00                            | 3.30 | 2.10                             | 2.30 |
| SWPA4030S4R3MT | 4.3±20%    | 0.072         | 0.055 | 37                      | 2.95                            | 3.20 | 2.10                             | 2.30 |
| SWPA4030S4R7MT | 4.7±20%    | 0.078         | 0.060 | 31                      | 2.90                            | 3.20 | 2.00                             | 2.30 |
| SWPA4030S5R6MT | 5.6±20%    | 0.085         | 0.065 | 30                      | 2.60                            | 2.80 | 1.95                             | 2.10 |
| SWPA4030S6R8MT | 6.8±20%    | 0.117         | 0.090 | 24                      | 2.75                            | 3.00 | 1.60                             | 1.70 |
| SWPA4030S7R5MT | 7.5±20%    | 0.110         | 0.085 | 26                      | 2.20                            | 2.40 | 1.65                             | 1.80 |
| SWPA4030S8R2MT | 8.2±20%    | 0.117         | 0.090 | 26                      | 2.10                            | 2.30 | 1.60                             | 1.70 |
| SWPA4030S100MT | 10±20%     | 0.130         | 0.10  | 21                      | 1.95                            | 2.40 | 1.50                             | 1.60 |
| SWPA4030S120MT | 12±20%     | 0.175         | 0.135 | 18                      | 1.70                            | 1.80 | 1.30                             | 1.40 |
| SWPA4030S150MT | 15±20%     | 0.247         | 0.190 | 16                      | 1.65                            | 1.80 | 1.11                             | 1.20 |
| SWPA4030S180MT | 18±20%     | 0.260         | 0.20  | 10                      | 1.40                            | 1.50 | 1.10                             | 1.20 |
| SWPA4030S220MT | 22±20%     | 0.293         | 0.225 | 10                      | 1.30                            | 1.40 | 1.00                             | 1.20 |
| SWPA4030S330MT | 33±20%     | 0.429         | 0.330 | 10                      | 1.10                            | 1.20 | 0.84                             | 0.92 |
| SWPA4030S360MT | 36±20%     | 0.436         | 0.335 | 9.8                     | 1.05                            | 1.10 | 0.83                             | 0.91 |
| SWPA4030S390MT | 39±20%     | 0.566         | 0.435 | 10                      | 1.03                            | 1.10 | 0.73                             | 0.80 |
| SWPA4030S470MT | 47±20%     | 0.579         | 0.445 | 8.4                     | 0.95                            | 1.00 | 0.72                             | 0.80 |
| SWPA4030S510MT | 51±20%     | 0.611         | 0.470 | 8.4                     | 0.90                            | 1.13 | 0.70                             | 0.80 |
| SWPA4030S560MT | 56±20%     | 0.722         | 0.555 | 8.4                     | 0.85                            | 0.94 | 0.65                             | 0.71 |
| SWPA4030S620MT | 62±20%     | 0.760         | 0.585 | 7                       | 0.80                            | 0.99 | 0.63                             | 0.70 |
| SWPA4030S680MT | 68±20%     | 1.128         | 0.868 | 7                       | 0.72                            | 0.80 | 0.52                             | 0.57 |



## SPECIFICATIONS

### SWPA4030S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA4030S750MT | 75±20%     | 1.326         | 1.020 | 6.3                     | 0.70                             | 0.88 | 0.48                              | 0.53 |
| SWPA4030S820MT | 82±20%     | 1.378         | 1.060 | 5.6                     | 0.66                             | 0.72 | 0.47                              | 0.52 |
| SWPA4030S910MT | 91±20%     | 1.430         | 1.10  | 5.6                     | 0.65                             | 0.71 | 0.46                              | 0.50 |
| SWPA4030S101MT | 100±20%    | 1.495         | 1.150 | 5.6                     | 0.60                             | 0.73 | 0.45                              | 0.49 |
| SWPA4030S121MT | 120±20%    | 1.755         | 1.350 | 5.4                     | 0.55                             | 0.60 | 0.42                              | 0.46 |
| SWPA4030S151MT | 150±20%    | 2.340         | 1.80  | 4                       | 0.50                             | 0.55 | 0.30                              | 0.35 |
| SWPA4030S471KT | 470±10%    | 9.360         | 7.20  | 2                       | 0.30                             | 0.35 | 0.20                              | 0.23 |
| SWPA4030S501MT | 500±20%    | 9.027         | 6.944 | 2                       | 0.28                             | 0.30 | 0.15                              | 0.20 |
| SWPA4030S681MT | 680±20%    | 9.854         | 7.580 | 1.2                     | 0.19                             | 0.20 | 0.14                              | 0.18 |

### SWPA5012S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA5012S1R0NT | 1.0±30%    | 0.068         | 0.057 | 103                     | 4.40                             | 4.70 | 2.00                              | 2.40 |
| SWPA5012S1R5NT | 1.5±30%    | 0.086         | 0.072 | 68                      | 3.70                             | 3.80 | 1.90                              | 2.20 |
| SWPA5012S2R2NT | 2.2±30%    | 0.108         | 0.090 | 50                      | 3.10                             | 3.20 | 1.70                              | 2.00 |
| SWPA5012S3R3NT | 3.3±30%    | 0.151         | 0.126 | 34                      | 2.40                             | 2.60 | 1.40                              | 1.70 |
| SWPA5012S4R7NT | 4.7±30%    | 0.197         | 0.164 | 31                      | 2.20                             | 2.30 | 1.30                              | 1.50 |
| SWPA5012S6R8MT | 6.8±20%    | 0.294         | 0.245 | 22                      | 1.70                             | 1.90 | 1.00                              | 1.20 |
| SWPA5012S100MT | 10±20%     | 0.413         | 0.344 | 17                      | 1.40                             | 1.50 | 0.85                              | 1.00 |
| SWPA5012S150MT | 15±20%     | 0.523         | 0.436 | 13                      | 1.20                             | 1.30 | 0.80                              | 0.92 |
| SWPA5012S220MT | 22±20%     | 0.858         | 0.780 | 16                      | 0.88                             | 0.98 | 0.60                              | 0.68 |

### SWPA5020S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |       | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|-------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ.  | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |       | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |       | Irms                              |      |
| SWPA5020SR22NT | 0.22±30%   | 0.011         | 0.009 | 280                     | 9.00                             | 12.00 | 5.30                              | 6.00 |
| SWPA5020SR24NT | 0.24±30%   | 0.011         | 0.009 | 248                     | 8.00                             | 10.00 | 5.30                              | 6.00 |
| SWPA5020SR47NT | 0.47±30%   | 0.017         | 0.013 | 160                     | 6.15                             | 6.70  | 4.60                              | 5.00 |
| SWPA5020SR56NT | 0.56±30%   | 0.022         | 0.017 | 137                     | 8.50                             | 9.60  | 3.80                              | 4.20 |
| SWPA5020SR68NT | 0.68±30%   | 0.022         | 0.017 | 120                     | 5.50                             | 6.00  | 4.00                              | 4.40 |
| SWPA5020SR75NT | 0.75±30%   | 0.022         | 0.017 | 117                     | 5.50                             | 6.00  | 4.00                              | 4.40 |
| SWPA5020S1R0NT | 1.0±30%    | 0.026         | 0.020 | 114                     | 4.10                             | 5.00  | 3.80                              | 4.10 |
| SWPA5020S1R2NT | 1.2±30%    | 0.029         | 0.022 | 83                      | 4.50                             | 4.90  | 3.55                              | 3.90 |
| SWPA5020S1R5NT | 1.5±30%    | 0.034         | 0.026 | 68                      | 4.10                             | 4.50  | 3.20                              | 3.50 |
| SWPA5020S2R2NT | 2.2±30%    | 0.042         | 0.032 | 57                      | 3.20                             | 4.00  | 2.90                              | 3.10 |
| SWPA5020S2R7NT | 2.7±30%    | 0.049         | 0.038 | 52                      | 2.90                             | 3.50  | 2.70                              | 2.90 |
| SWPA5020S3R0NT | 3.0±30%    | 0.049         | 0.038 | 49                      | 2.55                             | 2.80  | 2.70                              | 2.90 |
| SWPA5020S3R3NT | 3.3±30%    | 0.056         | 0.043 | 46                      | 2.55                             | 3.00  | 2.50                              | 2.70 |
| SWPA5020S3R6NT | 3.6±30%    | 0.056         | 0.043 | 43                      | 2.80                             | 3.00  | 2.50                              | 2.70 |

# SPECIFICATIONS

## SWPA5020S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA5020S3R9NT | 3.9±30%    | 0.056         | 0.043 | 40                      | 2.30                             | 2.80 | 2.50                              | 2.70 |
| SWPA5020S4R3MT | 4.3±20%    | 0.074         | 0.057 | 37                      | 2.50                             | 3.00 | 2.20                              | 2.40 |
| SWPA5020S4R7MT | 4.7±20%    | 0.074         | 0.057 | 37                      | 2.50                             | 2.70 | 2.20                              | 2.40 |
| SWPA5020S5R1MT | 5.1±20%    | 0.083         | 0.064 | 32                      | 2.25                             | 2.60 | 2.05                              | 2.20 |
| SWPA5020S5R6MT | 5.6±20%    | 0.083         | 0.064 | 32                      | 2.30                             | 2.50 | 2.05                              | 2.20 |
| SWPA5020S6R8MT | 6.8±20%    | 0.108         | 0.083 | 30                      | 2.05                             | 2.20 | 1.80                              | 1.90 |
| SWPA5020S7R5MT | 7.5±20%    | 0.117         | 0.090 | 26                      | 1.85                             | 2.00 | 1.75                              | 1.90 |
| SWPA5020S8R2MT | 8.2±20%    | 0.127         | 0.098 | 26                      | 1.85                             | 2.00 | 1.65                              | 1.80 |
| SWPA5020S9R1MT | 9.1±20%    | 0.143         | 0.110 | 24                      | 1.70                             | 1.80 | 1.55                              | 1.70 |
| SWPA5020S100MT | 10±20%     | 0.143         | 0.110 | 24                      | 1.70                             | 1.80 | 1.55                              | 1.70 |
| SWPA5020S120MT | 12±20%     | 0.182         | 0.140 | 22                      | 1.50                             | 1.60 | 1.40                              | 1.50 |
| SWPA5020S150MT | 15±20%     | 0.215         | 0.165 | 20                      | 1.35                             | 1.40 | 1.25                              | 1.30 |
| SWPA5020S180MT | 18±20%     | 0.260         | 0.200 | 16                      | 1.25                             | 1.30 | 1.15                              | 1.20 |
| SWPA5020S220MT | 22±20%     | 0.294         | 0.226 | 14                      | 1.15                             | 1.20 | 1.10                              | 1.20 |
| SWPA5020S330MT | 33±20%     | 0.507         | 0.390 | 10                      | 0.92                             | 1.00 | 0.90                              | 0.99 |
| SWPA5020S470MT | 47±20%     | 0.680         | 0.523 | 7                       | 0.77                             | 0.84 | 0.77                              | 0.84 |
| SWPA5020S560MT | 56±20%     | 0.819         | 0.630 | 6                       | 0.77                             | 0.84 | 0.70                              | 0.77 |
| SWPA5020S680MT | 68±20%     | 0.962         | 0.740 | 6                       | 0.65                             | 0.70 | 0.64                              | 0.70 |
| SWPA5020S820MT | 82±20%     | 1.158         | 0.965 | 6                       | 0.65                             | 0.75 | 0.50                              | 0.60 |
| SWPA5020S101MT | 100±20%    | 1.430         | 1.100 | 6                       | 0.53                             | 0.58 | 0.53                              | 0.58 |
| SWPA5020S121MT | 120±20%    | 1.755         | 1.350 | 6                       | 0.42                             | 0.53 | 0.40                              | 0.50 |
| SWPA5020S201MT | 200±20%    | 2.60          | 2.00  | 4.5                     | 0.30                             | 0.33 | 0.40                              | 0.45 |

## SWPA5040S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |       | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|-------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ.  | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |       | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |       | Irms                              |      |
| SWPA5040SR22MT | 0.22 ±20%  | 0.008         | 0.006 | 289                     | 18.00                            | 20.00 | 6.50                              | 7.50 |
| SWPA5040SR24NT | 0.24 ±30%  | 0.008         | 0.006 | 251                     | 15.70                            | 18.00 | 6.40                              | 7.40 |
| SWPA5040SR47MT | 0.47 ±20%  | 0.009         | 0.007 | 171                     | 10.00                            | 11.50 | 6.60                              | 7.60 |
| SWPA5040S1R0NT | 1.0±30%    | 0.016         | 0.012 | 117                     | 7.35                             | 8.20  | 4.90                              | 5.10 |
| SWPA5040S1R2NT | 1.2±30%    | 0.021         | 0.016 | 110                     | 6.50                             | 7.00  | 4.15                              | 4.30 |
| SWPA5040S1R5NT | 1.5±30%    | 0.020         | 0.015 | 86                      | 6.30                             | 7.30  | 4.30                              | 4.80 |
| SWPA5040S1R8MT | 1.8±20%    | 0.021         | 0.016 | 55                      | 5.50                             | 6.40  | 4.15                              | 4.30 |
| SWPA5040S2R2NT | 2.2±30%    | 0.025         | 0.019 | 50                      | 4.90                             | 5.50  | 3.80                              | 4.30 |
| SWPA5040S2R7NT | 2.7±30%    | 0.029         | 0.022 | 37                      | 4.30                             | 5.10  | 3.60                              | 4.10 |
| SWPA5040S3R0NT | 3.0±30%    | 0.029         | 0.022 | 37                      | 4.15                             | 4.80  | 3.60                              | 4.20 |
| SWPA5040S3R3NT | 3.3±30%    | 0.031         | 0.024 | 32                      | 3.95                             | 4.60  | 3.40                              | 3.90 |
| SWPA5040S3R6MT | 3.6±20%    | 0.031         | 0.026 | 30                      | 3.80                             | 4.40  | 3.30                              | 3.70 |
| SWPA5040S3R9NT | 3.9±30%    | 0.035         | 0.027 | 29                      | 3.55                             | 4.20  | 3.20                              | 3.70 |
| SWPA5040S3R9NT | 3.9±30%    | 0.035         | 0.027 | 29                      | 3.55                             | 4.20  | 3.20                              | 3.70 |
| SWPA5040S4R7NT | 4.7±30%    | 0.039         | 0.030 | 28                      | 3.50                             | 3.90  | 3.00                              | 3.30 |
| SWPA5040S5R6MT | 5.6±20%    | 0.046         | 0.035 | 27                      | 3.00                             | 3.70  | 2.80                              | 3.10 |
| SWPA5040S6R8MT | 6.8±20%    | 0.056         | 0.043 | 21                      | 2.90                             | 3.50  | 2.50                              | 2.80 |
| SWPA5040S8R2MT | 8.2±20%    | 0.062         | 0.048 | 20                      | 2.70                             | 3.00  | 2.30                              | 2.60 |
| SWPA5040S100MT | 10±20%     | 0.083         | 0.064 | 18                      | 2.35                             | 2.90  | 2.10                              | 2.40 |

# SPECIFICATIONS

## SWPA5040S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA5040S120MT | 12±20%     | 0.100         | 0.077 | 14                      | 2.20                             | 2.50 | 2.00                              | 2.10 |
| SWPA5040S150MT | 15±20%     | 0.112         | 0.086 | 13                      | 2.00                             | 2.30 | 2.00                              | 2.10 |
| SWPA5040S180MT | 18±20%     | 0.155         | 0.119 | 12                      | 1.70                             | 2.00 | 1.45                              | 1.65 |
| SWPA5040S220MT | 22±20%     | 0.168         | 0.129 | 11                      | 1.60                             | 1.90 | 1.50                              | 1.60 |
| SWPA5040S270MT | 27±20%     | 0.244         | 0.188 | 9.8                     | 1.52                             | 1.75 | 1.10                              | 1.25 |
| SWPA5040S330MT | 33±20%     | 0.244         | 0.188 | 9                       | 1.30                             | 1.50 | 1.20                              | 1.40 |
| SWPA5040S470MT | 47±20%     | 0.354         | 0.272 | 7                       | 1.10                             | 1.30 | 1.00                              | 1.10 |
| SWPA5040S510MT | 51±20%     | 0.494         | 0.380 | 6                       | 1.00                             | 1.20 | 1.00                              | 1.10 |
| SWPA5040S560MT | 56±20%     | 0.494         | 0.380 | 6                       | 1.05                             | 1.20 | 0.80                              | 0.90 |
| SWPA5040S680MT | 68±20%     | 0.520         | 0.40  | 6                       | 0.90                             | 1.10 | 0.80                              | 0.90 |
| SWPA5040S750MT | 75±20%     | 0.585         | 0.450 | 6                       | 0.85                             | 0.95 | 0.72                              | 0.80 |
| SWPA5040S101MT | 100±20%    | 0.728         | 0.560 | 5                       | 0.75                             | 0.85 | 0.70                              | 0.80 |
| SWPA5040S151MT | 150±20%    | 0.975         | 0.750 | 3.7                     | 0.65                             | 0.67 | 0.60                              | 0.70 |
| SWPA5040S221MT | 220±20%    | 1.820         | 1.400 | 3.0                     | 0.48                             | 0.55 | 0.40                              | 0.50 |
| SWPA5040S301MT | 300±20%    | 2.600         | 2.000 | 2.7                     | 0.50                             | 0.58 | 0.35                              | 0.40 |
| SWPA5040S331MT | 330±20%    | 2.730         | 2.100 | 2.7                     | 0.42                             | 0.47 | 0.40                              | 0.50 |
| SWPA5040S471MT | 470±20%    | 3.900         | 3.000 | 2.7                     | 0.37                             | 0.43 | 0.35                              | 0.40 |
| SWPA5040S561MT | 560±20%    | 4.914         | 3.780 | 1.52                    | 0.31                             | 0.36 | 0.31                              | 0.35 |
| SWPA5040S681MT | 680±20%    | 5.070         | 3.900 | 1.60                    | 0.30                             | 0.35 | 0.25                              | 0.30 |

## SWPA5045S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Typ.                             |      | Typ.                              |      |
| Units          | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA5045S1R5NT | 1.5±30%    | 0.022         | 0.017 | 78                      | 7.40                             | 8.50 | 5.20                              | 5.90 |
| SWPA5045S2R2NT | 2.2±20%    | 0.029         | 0.022 | 50                      | 6.40                             | 7.20 | 4.70                              | 5.40 |
| SWPA5045S3R3MT | 3.3±20%    | 0.035         | 0.027 | 36                      | 6.40                             | 7.20 | 4.20                              | 4.85 |
| SWPA5045S100MT | 10±20%     | 0.079         | 0.061 | 17                      | 3.20                             | 3.70 | 2.50                              | 2.90 |
| SWPA5045S220MT | 22±20%     | 0.163         | 0.125 | 10                      | 2.00                             | 2.35 | 1.55                              | 1.80 |

## SWPA6012S Series

| Part Number    | Inductance | DC Resistance | Self-resonant Frequency | Saturation Current <sup>*3</sup> | Heat Rating Current <sup>*4</sup> |
|----------------|------------|---------------|-------------------------|----------------------------------|-----------------------------------|
|                | @100kHz,1V | Typ.          | Min.                    | Typ.                             | Typ.                              |
| Units          | μH         | Ω             | MHz                     | A                                | A                                 |
| Symbol         | L          | DCR           | S.R.F                   | Isat                             | Irms                              |
| SWPA6012S1R0NT | 1.00±30%   | 0.055         | 80                      | 3.52                             | 2.30                              |
| SWPA6012S1R5NT | 1.50±30%   | 0.075         | 65                      | 2.73                             | 2.00                              |
| SWPA6012S2R5NT | 2.5±30%    | 0.090         | 45                      | 2.10                             | 1.80                              |
| SWPA6012S3R3NT | 3.3±30%    | 0.105         | 42                      | 1.80                             | 1.70                              |
| SWPA6012S4R7NT | 4.7±30%    | 0.125         | 36                      | 1.60                             | 1.55                              |
| SWPA6012S5R3NT | 5.3±30%    | 0.125         | 34                      | 1.50                             | 1.55                              |
| SWPA6012S6R8NT | 6.8±30%    | 0.165         | 30                      | 1.30                             | 1.35                              |
| SWPA6012S100MT | 10±20%     | 0.200         | 22                      | 1.00                             | 1.20                              |
| SWPA6012S150MT | 15±20%     | 0.295         | 18                      | 1.80                             | 0.80                              |

## SPECIFICATIONS

### SWPA6012S Series

| Part Number    | Inductance | DC Resistance |  | Self-resonant Frequency | Saturation Current <sup>*3</sup> |  | Heat Rating Current <sup>*4</sup> |  |
|----------------|------------|---------------|--|-------------------------|----------------------------------|--|-----------------------------------|--|
|                | @100kHz,1V | Typ.          |  | Min.                    | Typ.                             |  | Typ.                              |  |
| Units          | μH         | Ω             |  | MHz                     | A                                |  | A                                 |  |
| Symbol         | L          | DCR           |  | S.R.F                   | Isat                             |  | Irms                              |  |
| SWPA6012S220MT | 22±20%     | 0.465         |  | 12                      | 0.76                             |  | 0.65                              |  |
| SWPA6012S330MT | 33±20%     | 0.580         |  | 8                       | 0.59                             |  | 0.55                              |  |
| SWPA6012S470MT | 47±20%     | 0.810         |  | 6                       | 0.52                             |  | 0.46                              |  |
| SWPA6012S680MT | 68±20%     | 1.160         |  | 3                       | 0.44                             |  | 0.41                              |  |
| SWPA6012S101MT | 100±20%    | 1.670         |  | 1                       | 0.35                             |  | 0.32                              |  |

### SWPA6020S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA6020SR50NT | 0.50±30%   | 0.018         | 0.014 | 120                     | 4.50                             | 6.00 | 4.00                              | 5.00 |
| SWPA6020SR68NT | 0.68±30%   | 0.022         | 0.017 | 115                     | 6.55                             | 7.80 | 3.80                              | 4.80 |
| SWPA6020SR82NT | 0.82±30%   | 0.022         | 0.017 | 110                     | 5.30                             | 6.30 | 3.80                              | 4.80 |
| SWPA6020S1R0NT | 1.0±30%    | 0.026         | 0.020 | 100                     | 4.15                             | 5.00 | 3.50                              | 4.40 |
| SWPA6020S1R2NT | 1.2±30%    | 0.029         | 0.022 | 88                      | 5.90                             | 7.00 | 3.20                              | 4.00 |
| SWPA6020S1R5NT | 1.5±30%    | 0.029         | 0.022 | 79                      | 4.25                             | 5.10 | 3.20                              | 4.00 |
| SWPA6020S1R8NT | 1.8±30%    | 0.036         | 0.028 | 68                      | 4.85                             | 5.80 | 2.75                              | 3.50 |
| SWPA6020S2R0NT | 2.0±30%    | 0.046         | 0.035 | 65                      | 4.10                             | 4.90 | 2.60                              | 3.30 |
| SWPA6020S2R2NT | 2.2±30%    | 0.036         | 0.028 | 61                      | 3.75                             | 4.50 | 2.75                              | 3.50 |
| SWPA6020S2R7NT | 2.7±30%    | 0.046         | 0.035 | 56                      | 3.90                             | 4.60 | 2.60                              | 3.30 |
| SWPA6020S3R3NT | 3.3±30%    | 0.046         | 0.035 | 51                      | 3.15                             | 3.70 | 2.60                              | 3.30 |
| SWPA6020S3R9NT | 3.9±30%    | 0.064         | 0.049 | 45                      | 3.25                             | 3.90 | 2.10                              | 2.60 |
| SWPA6020S4R3NT | 4.3±30%    | 0.064         | 0.049 | 44                      | 2.70                             | 3.20 | 2.10                              | 2.60 |
| SWPA6020S4R7NT | 4.7±30%    | 0.075         | 0.058 | 41                      | 3.00                             | 3.60 | 2.00                              | 2.50 |
| SWPA6020S5R6NT | 5.6±30%    | 0.075         | 0.058 | 36                      | 2.40                             | 2.90 | 1.90                              | 2.40 |
| SWPA6020S6R2NT | 6.2±30%    | 0.103         | 0.079 | 31                      | 2.30                             | 2.70 | 1.80                              | 2.30 |
| SWPA6020S6R8NT | 6.8±30%    | 0.103         | 0.079 | 31                      | 2.20                             | 2.60 | 1.80                              | 2.30 |
| SWPA6020S8R2NT | 8.2±30%    | 0.137         | 0.105 | 27                      | 2.10                             | 2.50 | 1.40                              | 1.80 |
| SWPA6020S100MT | 10±20%     | 0.137         | 0.105 | 27                      | 1.75                             | 2.10 | 1.40                              | 1.80 |
| SWPA6020S120MT | 12±20%     | 0.156         | 0.120 | 25                      | 1.45                             | 1.70 | 1.30                              | 1.60 |
| SWPA6020S150MT | 15±20%     | 0.189         | 0.145 | 21                      | 1.20                             | 1.40 | 1.20                              | 1.50 |
| SWPA6020S180MT | 18±20%     | 0.234         | 0.180 | 18                      | 1.20                             | 1.40 | 1.08                              | 1.40 |
| SWPA6020S220MT | 22±20%     | 0.265         | 0.204 | 16                      | 1.05                             | 1.20 | 1.00                              | 1.30 |
| SWPA6020S330MT | 33±20%     | 0.390         | 0.30  | 11                      | 0.95                             | 1.10 | 0.84                              | 1.05 |
| SWPA6020S470MT | 47±20%     | 0.559         | 0.430 | 10                      | 0.70                             | 0.90 | 0.80                              | 0.90 |

### SWPA6028S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |      | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA6028SR82NT | 0.82±30%   | 0.016         | 0.012 | 97                      | 6.50                             | 9.00 | 5.20                              | 6.00 |
| SWPA6028S1R0NT | 1.0±30%    | 0.013         | 0.010 | 70                      | 5.75                             | 7.00 | 5.20                              | 5.70 |
| SWPA6028S1R2NT | 1.2±30%    | 0.017         | 0.013 | 69                      | 6.40                             | 7.50 | 4.58                              | 5.00 |

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## SWPA6028S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>3</sup> |      | Heat Rating Current <sup>4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|---------------------------------|------|----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                            | Typ. | Max.                             | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                               |      | A                                |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                            |      | Irms                             |      |
| SWPA6028S1R5NT | 1.5±30%    | 0.017         | 0.013 | 65                      | 6.00                            | 6.60 | 4.58                             | 5.00 |
| SWPA6028S2R2NT | 2.2±30%    | 0.026         | 0.020 | 48                      | 5.10                            | 5.60 | 3.75                             | 4.10 |
| SWPA6028S2R7NT | 2.7±30%    | 0.026         | 0.020 | 48                      | 3.80                            | 4.10 | 3.75                             | 4.10 |
| SWPA6028S3R3NT | 3.3±30%    | 0.033         | 0.025 | 41                      | 4.15                            | 4.50 | 3.48                             | 3.80 |
| SWPA6028S4R7NT | 4.7±30%    | 0.039         | 0.030 | 35                      | 3.00                            | 3.30 | 3.08                             | 3.40 |
| SWPA6028S5R1NT | 5.1±30%    | 0.056         | 0.043 | 32                      | 3.20                            | 3.50 | 2.60                             | 2.80 |
| SWPA6028S6R2MT | 6.2±20%    | 0.061         | 0.047 | 30                      | 3.05                            | 3.30 | 2.40                             | 2.60 |
| SWPA6028S6R8MT | 6.8±20%    | 0.061         | 0.047 | 27                      | 2.60                            | 3.00 | 2.40                             | 2.60 |
| SWPA6028S8R2MT | 8.2±20%    | 0.072         | 0.055 | 24                      | 2.30                            | 2.50 | 2.25                             | 2.50 |
| SWPA6028S9R1MT | 9.1±20%    | 0.096         | 0.074 | 24                      | 2.55                            | 2.80 | 2.15                             | 2.40 |
| SWPA6028S100MT | 10±20%     | 0.094         | 0.072 | 23                      | 2.04                            | 2.50 | 1.95                             | 2.40 |
| SWPA6028S120MT | 12±20%     | 0.104         | 0.080 | 18                      | 1.80                            | 2.00 | 1.85                             | 2.00 |
| SWPA6028S150MT | 15±20%     | 0.163         | 0.125 | 18                      | 1.75                            | 1.90 | 1.45                             | 1.60 |
| SWPA6028S180MT | 18±20%     | 0.156         | 0.120 | 15                      | 1.52                            | 1.80 | 1.45                             | 1.60 |
| SWPA6028S220MT | 22±20%     | 0.182         | 0.140 | 14                      | 1.45                            | 1.80 | 1.40                             | 1.60 |
| SWPA6028S270MT | 27±20%     | 0.202         | 0.155 | 13                      | 1.50                            | 1.60 | 1.32                             | 1.40 |
| SWPA6028S330MT | 33±20%     | 0.241         | 0.185 | 12                      | 1.35                            | 1.50 | 1.22                             | 1.30 |
| SWPA6028S360MT | 36±20%     | 0.280         | 0.215 | 11                      | 1.25                            | 1.40 | 1.13                             | 1.20 |
| SWPA6028S390MT | 39±20%     | 0.293         | 0.225 | 11                      | 1.25                            | 1.40 | 1.10                             | 1.20 |
| SWPA6028S470MT | 47±20%     | 0.410         | 0.315 | 9.5                     | 1.15                            | 1.30 | 1.06                             | 1.10 |
| SWPA6028S560MT | 56±20%     | 0.449         | 0.345 | 8.2                     | 1.05                            | 1.20 | 0.89                             | 1.00 |
| SWPA6028S680MT | 68±20%     | 0.468         | 0.360 | 7.7                     | 0.80                            | 0.95 | 0.86                             | 0.95 |
| SWPA6028S750MT | 75±20%     | 0.533         | 0.410 | 7.7                     | 0.90                            | 0.99 | 0.81                             | 0.90 |
| SWPA6028S820MT | 82±20%     | 0.650         | 0.50  | 7.7                     | 0.80                            | 0.88 | 0.70                             | 0.77 |
| SWPA6028S101MT | 100±20%    | 0.650         | 0.50  | 7.1                     | 0.65                            | 0.71 | 0.70                             | 0.77 |
| SWPA6028S401MT | 400±20%    | 2.808         | 2.160 | 2.8                     | 0.30                            | 0.33 | 0.40                             | 0.45 |

## SWPA6045S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>3</sup> |       | Heat Rating Current <sup>4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|---------------------------------|-------|----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                            | Typ.  | Max.                             | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                               |       | A                                |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                            |       | Irms                             |      |
| SWPA6045SR47NT | 0.47±30%   | 0.008         | 0.006 | 155                     | 15.00                           | 16.50 | 6.50                             | 6.60 |
| SWPA6045SR56NT | 0.56±30%   | 0.008         | 0.006 | 142                     | 14.00                           | 15.00 | 6.50                             | 7.50 |
| SWPA6045SR68NT | 0.68±30%   | 0.008         | 0.006 | 99                      | 11.00                           | 12.00 | 5.70                             | 6.50 |
| SWPA6045SR82NT | 0.82±30%   | 0.010         | 0.008 | 140                     | 10.35                           | 11.00 | 5.90                             | 6.50 |
| SWPA6045S1R0NT | 1.0±30%    | 0.014         | 0.011 | 100                     | 9.85                            | 10.00 | 5.14                             | 5.60 |
| SWPA6045S1R2NT | 1.2±30%    | 0.013         | 0.010 | 100                     | 8.35                            | 9.10  | 5.40                             | 5.90 |
| SWPA6045S1R3NT | 1.3±30%    | 0.013         | 0.010 | 100                     | 8.35                            | 9.10  | 5.40                             | 5.90 |
| SWPA6045S1R5NT | 1.5±30%    | 0.016         | 0.012 | 65                      | 8.80                            | 9.70  | 4.95                             | 5.40 |
| SWPA6045S1R8NT | 1.8±30%    | 0.016         | 0.012 | 74                      | 7.60                            | 8.40  | 4.95                             | 5.40 |
| SWPA6045S2R2NT | 2.2±30%    | 0.018         | 0.014 | 52                      | 6.75                            | 7.40  | 4.60                             | 5.00 |
| SWPA6045S2R3NT | 2.3±30%    | 0.027         | 0.021 | 60                      | 6.00                            | 6.60  | 3.50                             | 3.80 |
| SWPA6045S2R7NT | 2.7±30%    | 0.020         | 0.015 | 38                      | 5.75                            | 6.30  | 4.30                             | 4.70 |
| SWPA6045S3R0NT | 3.0±30%    | 0.026         | 0.020 | 35                      | 5.60                            | 6.20  | 3.80                             | 4.20 |
| SWPA6045S3R3NT | 3.3±30%    | 0.027         | 0.021 | 32                      | 5.90                            | 6.20  | 3.70                             | 4.00 |

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## SWPA6045S Series

| Part Number    | Inductance       | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |       | Heat Rating Current <sup>*4</sup> |       |
|----------------|------------------|---------------|-------|-------------------------|----------------------------------|-------|-----------------------------------|-------|
|                |                  | Max.          | Typ.  |                         | Min.                             | Max.  | Typ.                              | Max.  |
| Units          | @100kHz,1V<br>μH | Ω             |       | MHz                     | A                                |       | A                                 |       |
| Symbol         | L                | DCR           |       | S.R.F                   | Isat                             |       | Irms                              |       |
| SWPA6045S3R6NT | 3.6±30%          | 0.027         | 0.021 | 28                      | 5.25                             | 5.70  | 3.70                              | 4.00  |
| SWPA6045S4R3MT | 4.3±20%          | 0.030         | 0.023 | 23                      | 4.45                             | 4.90  | 3.50                              | 3.80  |
| SWPA6045S4R5MT | 4.5±20%          | 0.034         | 0.026 | 24                      | 4.97                             | 5.50  | 3.30                              | 3.60  |
| SWPA6045S4R7MT | 4.7±20%          | 0.034         | 0.026 | 24                      | 4.97                             | 5.50  | 3.30                              | 3.60  |
| SWPA6045S5R1MT | 5.1±20%          | 0.034         | 0.026 | 23                      | 4.40                             | 4.80  | 3.30                              | 3.60  |
| SWPA6045S5R6MT | 5.6±20%          | 0.038         | 0.029 | 23                      | 4.15                             | 4.60  | 3.15                              | 3.40  |
| SWPA6045S6R2MT | 6.2±20%          | 0.040         | 0.031 | 26                      | 4.43                             | 4.80  | 3.00                              | 3.30  |
| SWPA6045S6R3MT | 6.3±20%          | 0.040         | 0.031 | 26                      | 4.43                             | 4.70  | 3.00                              | 3.30  |
| SWPA6045S6R8MT | 6.8±20%          | 0.040         | 0.031 | 20                      | 3.90                             | 4.30  | 3.00                              | 3.30  |
| SWPA6045S7R5MT | 7.5±20%          | 0.044         | 0.034 | 18                      | 3.50                             | 3.80  | 2.90                              | 3.20  |
| SWPA6045S8R2MT | 8.2±20%          | 0.056         | 0.043 | 21                      | 3.90                             | 4.30  | 2.60                              | 2.80  |
| SWPA6045S9R1MT | 9.1±20%          | 0.056         | 0.043 | 17                      | 3.35                             | 3.70  | 2.60                              | 2.80  |
| SWPA6045S100MT | 10±20%           | 0.062         | 0.048 | 15                      | 3.20                             | 3.50  | 2.45                              | 2.70  |
| SWPA6045S120MT | 12±20%           | 0.075         | 0.058 | 13                      | 2.80                             | 3.00  | 2.20                              | 2.40  |
| SWPA6045S150MT | 15±20%           | 0.088         | 0.068 | 12                      | 2.50                             | 2.70  | 2.05                              | 2.20  |
| SWPA6045S180MT | 18±20%           | 0.105         | 0.081 | 10                      | 2.20                             | 2.40  | 1.85                              | 2.00  |
| SWPA6045S220MT | 22±20%           | 0.116         | 0.089 | 10                      | 2.05                             | 2.20  | 1.80                              | 2.00  |
| SWPA6045S270MT | 27±20%           | 0.133         | 0.102 | 9.2                     | 1.90                             | 2.10  | 1.65                              | 1.80  |
| SWPA6045S300MT | 30±20%           | 0.172         | 0.132 | 7.8                     | 1.70                             | 1.80  | 1.50                              | 1.60  |
| SWPA6045S330MT | 33±20%           | 0.178         | 0.137 | 7.8                     | 1.65                             | 1.80  | 1.45                              | 1.60  |
| SWPA6045S360MT | 36±20%           | 0.225         | 0.173 | 7.8                     | 1.62                             | 1.80  | 1.40                              | 1.50  |
| SWPA6045S390MT | 39±20%           | 0.234         | 0.180 | 7.8                     | 1.50                             | 1.60  | 1.25                              | 1.40  |
| SWPA6045S430MT | 43±20%           | 0.260         | 0.20  | 7.7                     | 1.63                             | 1.80  | 1.20                              | 1.30  |
| SWPA6045S470MT | 47±20%           | 0.260         | 0.20  | 6.4                     | 1.40                             | 1.50  | 1.20                              | 1.30  |
| SWPA6045S510MT | 51±20%           | 0.269         | 0.207 | 6.4                     | 1.35                             | 1.50  | 1.15                              | 1.20  |
| SWPA6045S560MT | 56±20%           | 0.287         | 0.221 | 6.4                     | 1.30                             | 1.40  | 1.10                              | 1.20  |
| SWPA6045S620MT | 62±20%           | 0.306         | 0.235 | 6.4                     | 1.25                             | 1.40  | 1.10                              | 1.20  |
| SWPA6045S680MT | 68±20%           | 0.376         | 0.289 | 6.4                     | 1.20                             | 1.30  | 1.00                              | 1.10  |
| SWPA6045S750MT | 75±20%           | 0.397         | 0.305 | 5                       | 1.15                             | 1.20  | 0.95                              | 1.00  |
| SWPA6045S820MT | 82±20%           | 0.443         | 0.341 | 4.9                     | 1.05                             | 1.10  | 0.90                              | 0.99  |
| SWPA6045S910MT | 91±20%           | 0.467         | 0.359 | 4.9                     | 1.00                             | 1.10  | 0.85                              | 0.94  |
| SWPA6045S101MT | 100±20%          | 0.563         | 0.433 | 4.2                     | 0.95                             | 1.00  | 0.80                              | 0.88  |
| SWPA6045S121MT | 120±20%          | 0.629         | 0.484 | 4.2                     | 0.85                             | 0.94  | 0.77                              | 0.85  |
| SWPA6045S151MT | 150±20%          | 0.754         | 0.580 | 4.2                     | 0.80                             | 0.88  | 0.70                              | 0.77  |
| SWPA6045S221MT | 220±20%          | 1.084         | 0.834 | 3.5                     | 0.70                             | 0.77  | 0.59                              | 0.65  |
| SWPA6045S331MT | 330±20%          | 1.651         | 1.270 | 2.8                     | 0.57                             | 0.63  | 0.57                              | 0.63  |
| SWPA6045S471MT | 470±20%          | 2.340         | 1.80  | 2.0                     | 0.500                            | 0.560 | 0.420                             | 0.480 |
| SWPA6045S681MT | 680±20%          | 3.250         | 2.50  | 1.7                     | 0.420                            | 0.460 | 0.330                             | 0.380 |

## SWPA8040S Series

| Part Number    | Inductance       | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |       | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------------|---------------|-------|-------------------------|----------------------------------|-------|-----------------------------------|------|
|                |                  | Max.          | Typ.  |                         | Min.                             | Max.  | Typ.                              | Max. |
| Units          | @100kHz,1V<br>μH | Ω             |       | MHz                     | A                                |       | A                                 |      |
| Symbol         | L                | DCR           |       | S.R.F                   | Isat                             |       | Irms                              |      |
| SWPA8040SR82NT | 0.82±30%         | 0.010         | 0.008 | 94                      | 13.80                            | 16.00 | 6.30                              | 6.90 |
| SWPA8040S1R0NT | 1.0±30%          | 0.010         | 0.008 | 89                      | 9.85                             | 14.00 | 6.30                              | 6.90 |
| SWPA8040S1R2NT | 1.2±30%          | 0.013         | 0.010 | 59                      | 10.00                            | 14.00 | 5.65                              | 6.20 |



# SPECIFICATIONS

## SWPA8040S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |       | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|-------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ.  | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |       | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |       | Irms                              |      |
| SWPA8040S1R5NT | 1.5±30%    | 0.013         | 0.010 | 67                      | 8.15                             | 11.00 | 5.65                              | 6.20 |
| SWPA8040S2R0NT | 2.0±30%    | 0.016         | 0.012 | 43                      | 9.25                             | 10.00 | 5.15                              | 5.60 |
| SWPA8040S2R2NT | 2.2±30%    | 0.016         | 0.012 | 41                      | 7.10                             | 8.00  | 5.15                              | 5.60 |
| SWPA8040S3R0NT | 3.0±30%    | 0.018         | 0.014 | 32                      | 6.10                             | 7.00  | 4.70                              | 5.20 |
| SWPA8040S3R3NT | 3.3±30%    | 0.022         | 0.017 | 27                      | 6.50                             | 7.00  | 4.40                              | 4.80 |
| SWPA8040S3R6NT | 3.6±30%    | 0.022         | 0.017 | 30                      | 7.52                             | 8.50  | 4.35                              | 4.80 |
| SWPA8040S3R9NT | 3.9±30%    | 0.022         | 0.017 | 26                      | 5.75                             | 6.50  | 4.35                              | 4.80 |
| SWPA8040S4R7NT | 4.7±30%    | 0.025         | 0.019 | 24                      | 5.90                             | 6.50  | 4.10                              | 4.50 |
| SWPA8040S5R1NT | 5.1±30%    | 0.025         | 0.019 | 22                      | 4.70                             | 5.40  | 4.05                              | 4.40 |
| SWPA8040S5R6NT | 5.6±30%    | 0.027         | 0.021 | 24                      | 6.00                             | 6.90  | 3.85                              | 4.20 |
| SWPA8040S6R2NT | 6.2±30%    | 0.027         | 0.021 | 20                      | 4.45                             | 5.10  | 3.85                              | 4.20 |
| SWPA8040S6R8MT | 6.8±20%    | 0.031         | 0.024 | 20                      | 4.55                             | 5.20  | 3.60                              | 4.00 |
| SWPA8040S8R2MT | 8.2±20%    | 0.034         | 0.026 | 17                      | 4.20                             | 4.80  | 3.45                              | 3.80 |
| SWPA8040S100MT | 10±20%     | 0.038         | 0.029 | 15                      | 3.60                             | 4.10  | 3.30                              | 3.60 |
| SWPA8040S120MT | 12±20%     | 0.053         | 0.041 | 13                      | 3.50                             | 4.00  | 2.80                              | 3.00 |
| SWPA8040S150MT | 15±20%     | 0.061         | 0.047 | 12                      | 2.95                             | 3.40  | 2.60                              | 2.80 |
| SWPA8040S180MT | 18±20%     | 0.069         | 0.053 | 11                      | 2.70                             | 3.10  | 2.40                              | 2.60 |
| SWPA8040S220MT | 22±20%     | 0.090         | 0.069 | 9.5                     | 2.40                             | 2.70  | 2.10                              | 2.30 |
| SWPA8040S270MT | 27±20%     | 0.101         | 0.078 | 9.2                     | 2.15                             | 2.50  | 2.00                              | 2.20 |
| SWPA8040S330MT | 33±20%     | 0.126         | 0.097 | 7.8                     | 2.05                             | 2.40  | 1.80                              | 2.00 |
| SWPA8040S360MT | 36±20%     | 0.133         | 0.102 | 7.8                     | 2.00                             | 2.30  | 1.75                              | 1.90 |
| SWPA8040S390MT | 39±20%     | 0.139         | 0.107 | 7.8                     | 1.95                             | 2.20  | 1.70                              | 1.90 |
| SWPA8040S430MT | 43±20%     | 0.147         | 0.113 | 7.8                     | 1.90                             | 2.20  | 1.65                              | 1.80 |
| SWPA8040S470MT | 47±20%     | 0.177         | 0.136 | 6.4                     | 1.75                             | 2.00  | 1.55                              | 1.70 |
| SWPA8040S510MT | 51±20%     | 0.185         | 0.142 | 6.4                     | 1.70                             | 1.90  | 1.50                              | 1.60 |
| SWPA8040S560MT | 56±20%     | 0.192         | 0.148 | 6.4                     | 1.55                             | 1.70  | 1.45                              | 1.60 |
| SWPA8040S620MT | 62±20%     | 0.237         | 0.182 | 6.4                     | 1.50                             | 1.60  | 1.30                              | 1.40 |
| SWPA8040S680MT | 68±20%     | 0.255         | 0.196 | 4.9                     | 1.45                             | 1.60  | 1.25                              | 1.40 |
| SWPA8040S750MT | 75±20%     | 0.274         | 0.211 | 4.9                     | 1.35                             | 1.50  | 1.20                              | 1.30 |
| SWPA8040S820MT | 82±20%     | 0.293         | 0.225 | 5.9                     | 1.30                             | 1.40  | 1.15                              | 1.20 |
| SWPA8040S910MT | 91±20%     | 0.354         | 0.272 | 4.9                     | 1.20                             | 1.30  | 1.05                              | 1.10 |
| SWPA8040S101MT | 100±20%    | 0.377         | 0.290 | 4.2                     | 1.15                             | 1.30  | 1.00                              | 1.10 |
| SWPA8040S121MT | 120±20%    | 0.434         | 0.334 | 3.5                     | 1.05                             | 1.10  | 0.95                              | 1.00 |
| SWPA8040S151MT | 150±20%    | 0.533         | 0.410 | 3.5                     | 1.10                             | 1.20  | 0.85                              | 0.94 |
| SWPA8040S181MT | 180±20%    | 0.676         | 0.520 | 3.5                     | 0.95                             | 1.15  | 0.83                              | 0.92 |
| SWPA8040S221MT | 220±20%    | 0.779         | 0.599 | 3.5                     | 0.85                             | 0.94  | 0.80                              | 0.88 |
| SWPA8040S331MT | 330±20%    | 1.156         | 0.889 | 2.8                     | 0.68                             | 0.75  | 0.64                              | 0.70 |
| SWPA8040S471MT | 470±20%    | 1.625         | 1.260 | 2.1                     | 0.60                             | 0.70  | 0.50                              | 0.60 |

## SWPA8060S Series

| Part Number       | Inductance | DC Resistance |      | Self-resonant Frequency | Saturation Current <sup>*3</sup> |      | Heat Rating Current <sup>*4</sup> |      |
|-------------------|------------|---------------|------|-------------------------|----------------------------------|------|-----------------------------------|------|
|                   | @100kHz,1V | Max.          | Typ. | Min.                    | Max.                             | Typ. | Max.                              | Typ. |
| Units             | μH         | Ω             |      | MHz                     | A                                |      | A                                 |      |
| Symbol            | L          | DCR           |      | S.R.F                   | Isat                             |      | Irms                              |      |
| SWPA8060S681KTY01 | 680±10%    | 2.17          | 1.81 | 1.26                    | 0.72                             | 0.82 | 0.46                              | 0.53 |

# SPECIFICATIONS

## SWPA8065S Series

| Part Number    | Inductance | DC Resistance |       | Self-resonant Frequency | Saturation Current <sup>*3</sup> |       | Heat Rating Current <sup>*4</sup> |      |
|----------------|------------|---------------|-------|-------------------------|----------------------------------|-------|-----------------------------------|------|
|                | @100kHz,1V | Max.          | Typ.  | Min.                    | Max.                             | Typ.  | Max.                              | Typ. |
| Units          | μH         | Ω             |       | MHz                     | A                                |       | A                                 |      |
| Symbol         | L          | DCR           |       | S.R.F                   | Isat                             |       | I <sub>rms</sub>                  |      |
| SWPA8065S1R0MT | 1.0±20%    | 0.011         | 0.008 | 96                      | 20.0                             | 22.0  | 7.00                              | 8.00 |
| SWPA8065S3R3MT | 3.3±20%    | 0.018         | 0.015 | 27                      | 9.50                             | 10.00 | 5.10                              | 5.90 |
| SWPA8065S4R7MT | 4.7±20%    | 0.022         | 0.018 | 18                      | 8.50                             | 9.50  | 4.70                              | 5.40 |
| SWPA8065S5R6MT | 5.6±20%    | 0.026         | 0.022 | 17                      | 8.00                             | 9.00  | 4.50                              | 5.20 |
| SWPA8065S6R8MT | 6.8±20%    | 0.026         | 0.022 | 16                      | 7.50                             | 8.00  | 4.50                              | 5.20 |
| SWPA8065S8R2MT | 8.2±20%    | 0.031         | 0.026 | 15                      | 7.00                             | 7.70  | 4.20                              | 4.80 |
| SWPA8065S100MT | 10±20%     | 0.044         | 0.037 | 13                      | 8.00                             | 8.90  | 3.20                              | 3.70 |
| SWPA8065S220MT | 22±20%     | 0.072         | 0.060 | 8                       | 4.30                             | 4.80  | 2.70                              | 3.10 |
| SWPA8065S101MT | 100±20%    | 0.028         | 0.233 | 3.1                     | 2.00                             | 2.40  | 1.35                              | 1.45 |
| SWPA8065S151MT | 150±20%    | 0.440         | 0.353 | 2.5                     | 1.60                             | 2.00  | 0.95                              | 1.10 |
| SWPA8065S221MT | 220±20%    | 0.656         | 0.547 | 2.0                     | 1.20                             | 1.50  | 0.80                              | 0.90 |
| SWPA8065S331MT | 330±20%    | 0.840         | 0.700 | 1.7                     | 1.00                             | 1.20  | 0.75                              | 0.85 |
| SWPA8065S431MT | 430±20%    | 1.20          | 1.00  | 1.5                     | 0.95                             | 1.05  | 0.61                              | 0.69 |

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

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

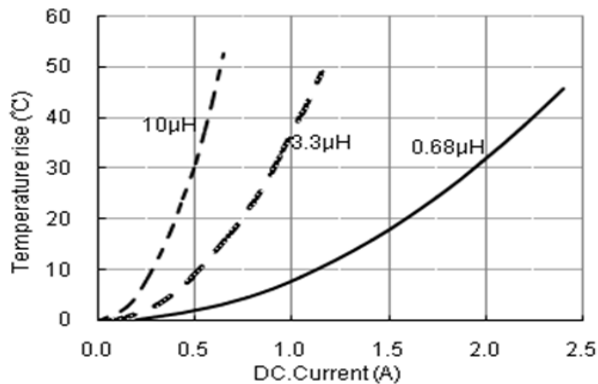
※\*3: Isat: DC current at which the inductance drops approximate 30% from its value without current;

※\*4: I<sub>rms</sub>: DC current that causes the temperature rise (ΔT =40°C) from 20°C ambient.

# TYPICAL ELECTRICAL CHARACTERISTICS

## SWPA252010S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



## SWPA252012S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



# TYPICAL ELECTRICAL CHARACTERISTICS

## SWPA3010S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



## SWPA3012S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



## SWPA3015S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



## SWPA4010S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristic



# TYPICAL ELECTRICAL CHARACTERISTICS

## SWPA4012S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristic



## SWPA4018S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



## SWPA4020S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



## SWPA4030S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



# TYPICAL ELECTRICAL CHARACTERISTICS

## SWPA5012S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



## SWPA5020S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics

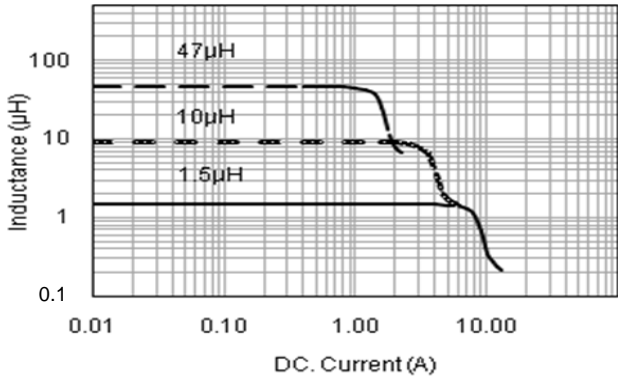


## SWPA5040S Series

Temperature vs. DC Current Characteristics

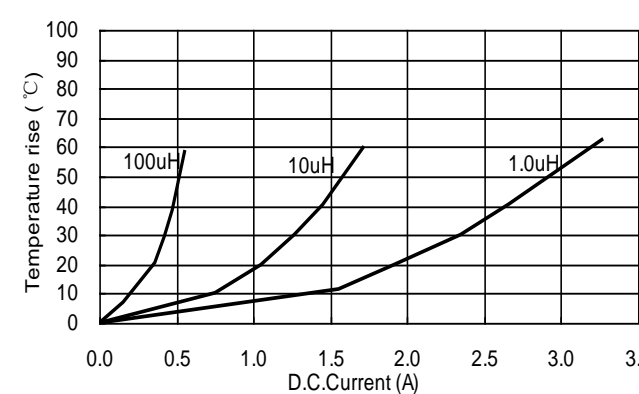


Inductance vs. DC Current Characteristics



## SWPA6012S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics





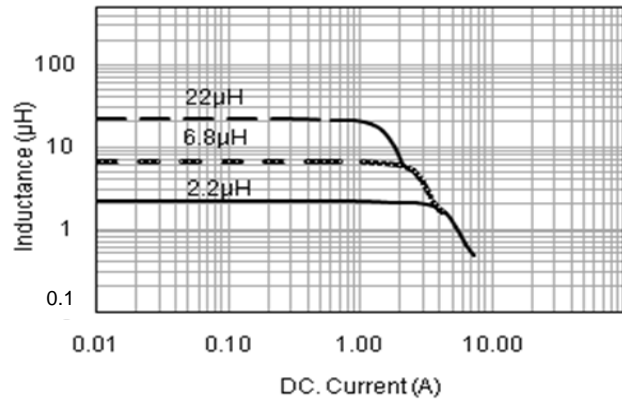
# TYPICAL ELECTRICAL CHARACTERISTICS

## SWPA6020S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



## SWPA6028S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



## SWPA6045S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



## SWPA8040S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics





# TYPICAL ELECTRICAL CHARACTERISTICS

SWPA8065S Series

Temperature vs. DC Current Characteristics



Inductance vs. DC Current Characteristics



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