

FEATURES

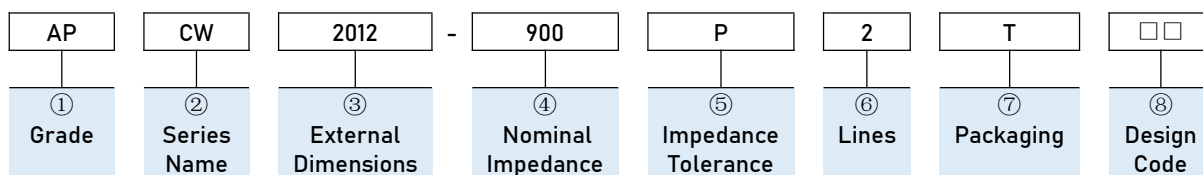
- Winding type realizes small size and low profile.
- Excellent solderability .
- Prevention of common mode noise at high frequency.
- Operating Temperature: -40℃~+85℃ .
- RoHS, Halogen Free and REACH Compliance.



APPLICATIONS

- USB2.0 of PC, peripheral equipment's, small digital AV equipment's, etc.
- LVDS lines of Note PC, LCD ,Audio lines.

PART NUMBERING



| ① Grade | |
|---------|------------|
| AP | Grade Code |

| ② Series Name | |
|---------------|-------------------------------------|
| CW | Winding Type Common Mode Choke Coil |

| ③ External Dimensions | |
|-----------------------|-------------|
| | 2012 [0805] |
| | 3216 [1206] |
| | 3225 [1210] |
| | 4532[1812] |

| ⑥ Number of Lines | |
|-------------------|---|
| | 2 |

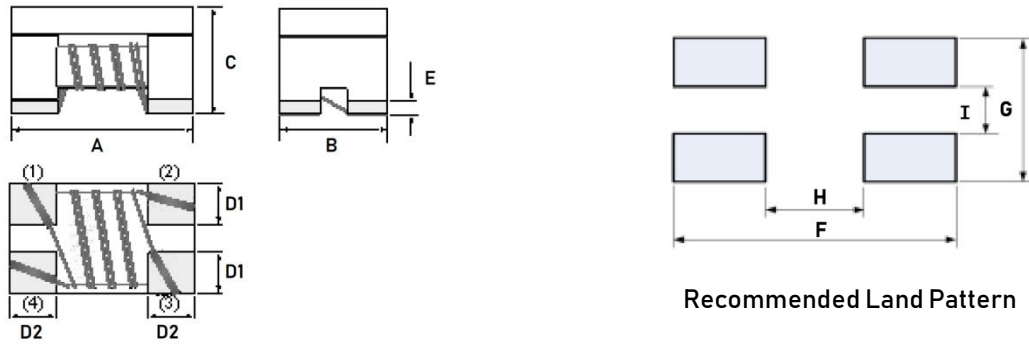
| ④ Nominal Impedance | |
|---------------------|--------------------------------|
| Code (example) | Nominal Impedance [Ω] |
| 900 | 90 |
| 121 | 120 |
| 102 | 1000 |

| ⑦ Packaging | |
|-------------|-------------|
| T | Tape & Reel |

| ⑤ Impedance Tolerance | |
|-----------------------|---------------------|
| Code (example) | Impedance Tolerance |
| P | ±25% |
| N | ±30% |

| ⑧ Design Code | |
|---------------|---------------------------|
| □□ | Standard product is blank |

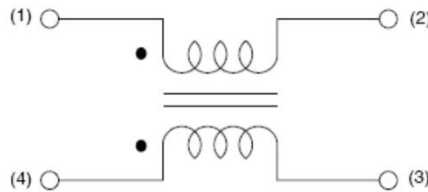
DIMENSIONS & RECOMMENDED LAND PATTERN



Unit: mm

| Series | Dimensions | | | | | | Recommended Land Pattern | | | |
|----------|------------|---------|---------|---------|---------|---------|--------------------------|--------|--------|--------|
| | A | B | C | E | D1 Typ. | D2 Typ. | F Typ. | G Typ. | I Typ. | H Typ. |
| APCW2012 | 2.0±0.2 | 1.2±0.2 | 1.2±0.2 | 0.2±0.1 | 0.55 | 0.46 | 2.6 | 1.25 | 0.4 | 0.8 |
| APCW3216 | 3.2±0.2 | 1.6±0.2 | 1.9±0.2 | 0.2±0.1 | 0.7 | 0.6 | 3.5 | 1.6 | 0.4 | 1.9 |
| APCW3225 | 3.2±0.2 | 2.5±0.2 | 2.1±0.2 | 0.2±0.1 | 0.8 | 0.9 | 4 | 2.5 | 0.9 | 2.2 |
| APCW4532 | 4.5±0.2 | 3.2±0.2 | 2.8±0.2 | 0.2±0.1 | 1 | 1.2 | 5.10 | 3.6 | 1.05 | 3.4 |

EQUIVALENT CIRCUIT



ELECTRICAL CHARACTERISTICS

● APCW2012 Series

| Part Number | Impedance | Rated Voltage | Test Freq. | Heat Rating Current Max. | DC Resistance Max. | Insulation Resistance Min. |
|-----------------|-----------|---------------|------------|--------------------------|--------------------|----------------------------|
| Units | Ω | Volts | MHz | mA | Ω | MΩ |
| Symbol | Z | VDC | Freq. | I _{rms} | DCR | IR |
| APCW2012-500P2T | 50 | 50 | 100 | 400 | 0.25 | 10 |
| APCW2012-670P2T | 67 | 50 | 100 | 400 | 0.25 | 10 |
| APCW2012-900P2T | 90 | 50 | 100 | 330 | 0.35 | 10 |
| APCW2012-121P2T | 120 | 50 | 100 | 370 | 0.3 | 10 |
| APCW2012-181P2T | 180 | 50 | 100 | 330 | 0.35 | 10 |
| APCW2012-221P2T | 220 | 50 | 100 | 300 | 0.4 | 10 |
| APCW2012-261P2T | 260 | 50 | 100 | 300 | 0.4 | 10 |
| APCW2012-361P2T | 360 | 50 | 100 | 280 | 0.55 | 10 |
| APCW2012-601P2T | 600 | 50 | 100 | 220 | 0.6 | 10 |
| APCW2012-801P2T | 800 | 50 | 100 | 300 | 0.88 | 10 |
| APCW2012-901P2T | 900 | 50 | 100 | 150 | 0.9 | 10 |
| APCW2012-102P2T | 1000 | 50 | 100 | 150 | 1.3 | 10 |

ELECTRICAL CHARACTERISTICS

● APCW3216 Series

| Part Number | Impedance | Rated Voltage | Test Freq. | Heat Rating Current Max. | DC Resistance Max. | Insulation Resistance Min. |
|-----------------|-----------|---------------|------------|--------------------------|--------------------|----------------------------|
| Units | Ω | Volts | MHz | mA | Ω | M Ω |
| Symbol | Z | VDC | Freq. | Irms | DCR | IR |
| APCW3216-900P2T | 90 | 50 | 100 | 370 | 0.3 | 10 |
| APCW3216-121P2T | 120 | 50 | 100 | 350 | 0.3 | 10 |
| APCW3216-161P2T | 160 | 50 | 100 | 340 | 0.4 | 10 |
| APCW3216-221P2T | 220 | 50 | 100 | 300 | 0.45 | 10 |
| APCW3216-261P2T | 260 | 50 | 100 | 310 | 0.5 | 10 |
| APCW3216-361P2T | 360 | 50 | 100 | 300 | 0.6 | 10 |
| APCW3216-601P2T | 600 | 50 | 100 | 260 | 0.8 | 10 |
| APCW3216-801P2T | 800 | 50 | 100 | 240 | 0.9 | 10 |
| APCW3216-102P2T | 1000 | 50 | 100 | 230 | 1 | 10 |
| APCW3216-142P2T | 1400 | 50 | 100 | 220 | 1 | 10 |
| APCW3216-202P2T | 2000 | 50 | 100 | 200 | 1.2 | 10 |
| APCW3216-222P2T | 2200 | 50 | 100 | 200 | 1.2 | 10 |

● APCW3225 Series

| Part Number | Impedance | Rated Voltage | Test Freq. | Heat Rating Current Max. | DC Resistance Max. | Insulation Resistance Min. |
|-----------------|-----------|---------------|------------|--------------------------|--------------------|----------------------------|
| Units | Ω | Volts | MHz | mA | Ω | M Ω |
| Symbol | Z | VDC | Freq. | Irms | DCR | IR |
| APCW3225-800P2T | 80 | 50 | 100 | 640 | 0.12 | 10 |
| APCW3225-161P2T | 160 | 50 | 100 | 480 | 0.15 | 10 |
| APCW3225-271P2T | 270 | 50 | 100 | 450 | 0.25 | 10 |
| APCW3225-501P2T | 500 | 50 | 100 | 1000 | 0.3 | 10 |
| APCW3225-601P2T | 600 | 50 | 100 | 1000 | 0.2 | 10 |
| APCW3225-801P2T | 800 | 50 | 100 | 350 | 0.35 | 10 |
| APCW3225-102P2T | 1000 | 50 | 100 | 480 | 0.35 | 10 |

● APCW4532 Series

| Part Number | Impedance | Rated Voltage | Test Freq. | Heat Rating Current Max. | DC Resistance Max. | Insulation Resistance Min. |
|-----------------|-----------|---------------|------------|--------------------------|--------------------|----------------------------|
| Units | Ω | Volts | MHz | mA | Ω | M Ω |
| Symbol | Z | VDC | Freq. | Irms | DCR | IR |
| APCW4532-800P2T | 80 | 50 | 100 | 3000 | 0.05 | 10 |
| APCW4532-900P2T | 90 | 50 | 100 | 3000 | 0.09 | 10 |
| APCW4532-121P2T | 120 | 50 | 100 | 3000 | 0.1 | 10 |
| APCW4532-201P2T | 200 | 50 | 100 | 1500 | 0.1 | 10 |
| APCW4532-221P2T | 220 | 50 | 100 | 1300 | 0.1 | 10 |
| APCW4532-331P2T | 330 | 50 | 100 | 1100 | 0.11 | 10 |
| APCW4532-601P2T | 600 | 50 | 100 | 1000 | 0.12 | 10 |
| APCW4532-701P2T | 700 | 50 | 100 | 1500 | 0.12 | 10 |
| APCW4532-801P2T | 800 | 50 | 100 | 900 | 0.16 | 10 |

ELECTRICAL CHARACTERISTICS

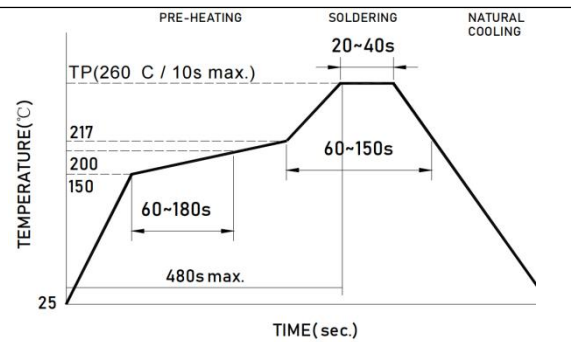
● APCW4532 Series

| Part Number | Impedance | Rated Voltage | Test Freq. | Heat Rating Current Max. | DC Resistance Max. | Insulation Resistance Min. |
|-----------------|-----------|---------------|------------|--------------------------|--------------------|----------------------------|
| Units | Ω | Volts | MHz | mA | Ω | MΩ |
| Symbol | Z | VDC | Freq. | Irms | DCR | IR |
| APCW4532-901P2T | 900 | 50 | 100 | 1000 | 0.17 | 10 |
| APCW4532-102P2T | 1000 | 50 | 100 | 800 | 0.18 | 10 |
| APCW4532-142P2T | 1400 | 50 | 100 | 700 | 0.2 | 10 |

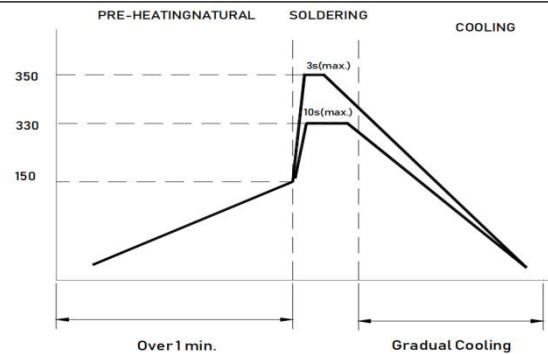
● Rating DC current: Temperature rise(ΔT) is 40 °C approximately at Irms.

SOLDERING CONDITIONS

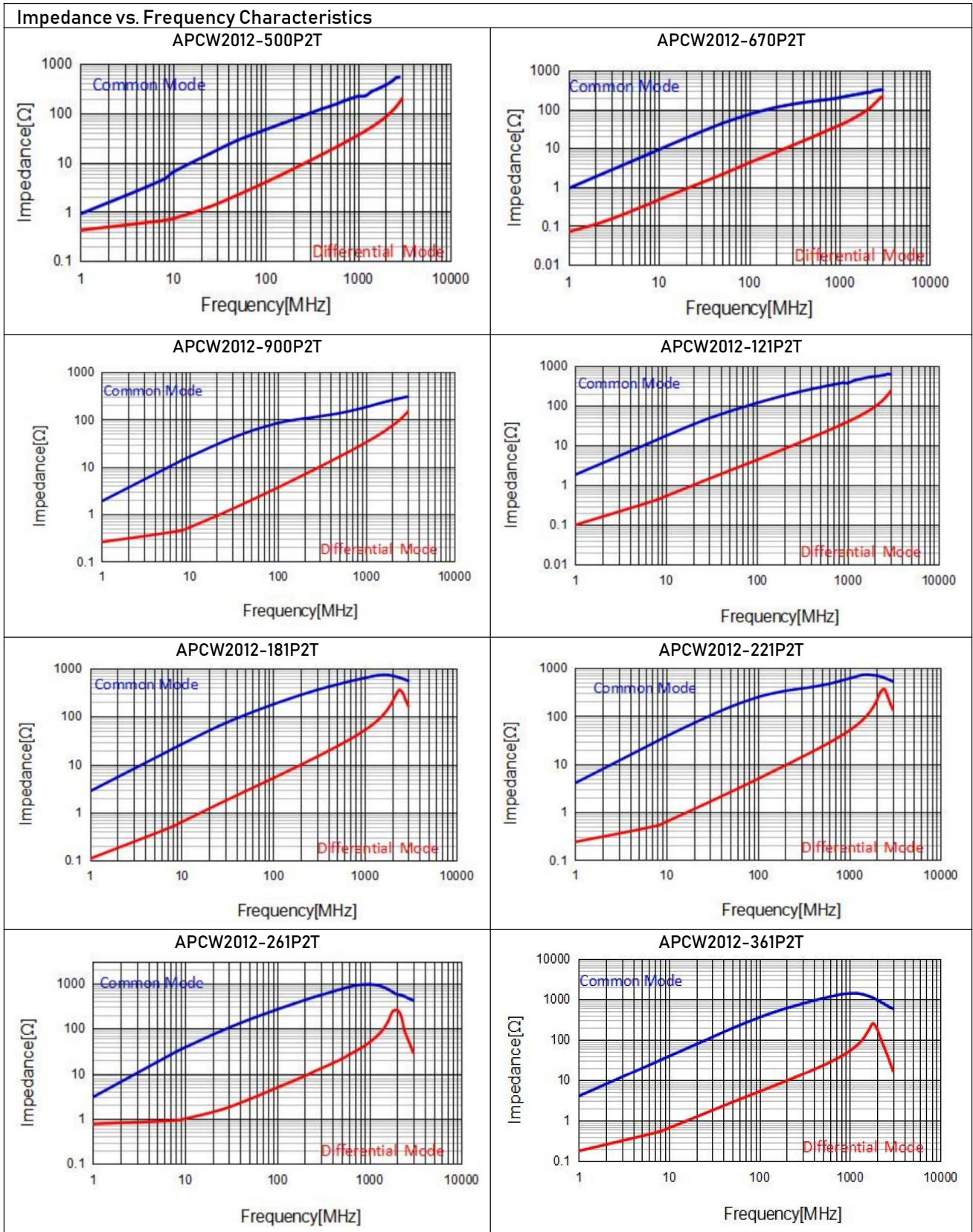
- Preheat circuit and products to 150 °C
- 260 °C tip temperature (max)
- Reflow times: no more than 2 times
- Solder paste thickness: the best 0.08mm is, but max is 0.1mm



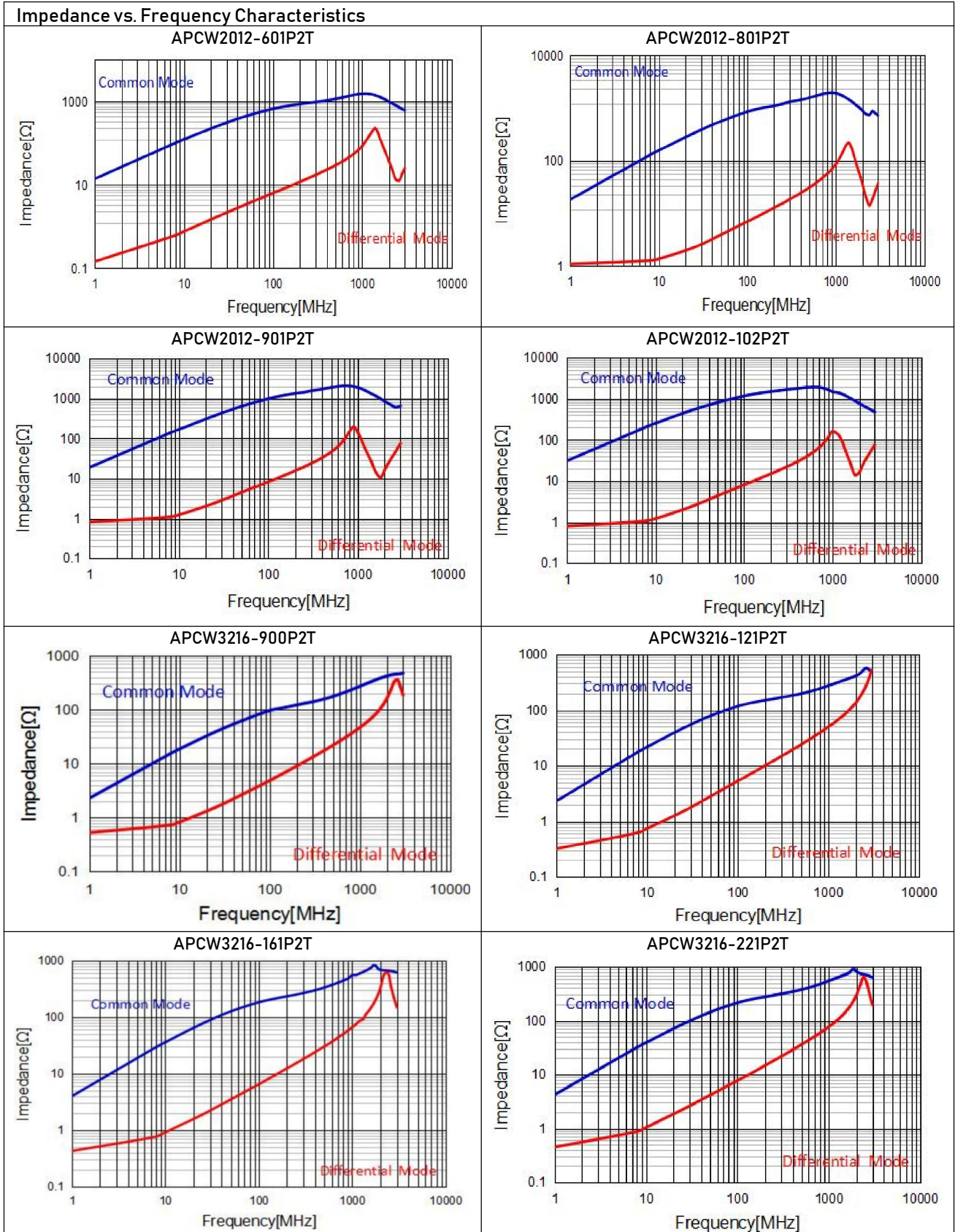
- Use a 20 watt soldering iron with tip diameter of 1.0mm
- Limit soldering time to 3 sec.



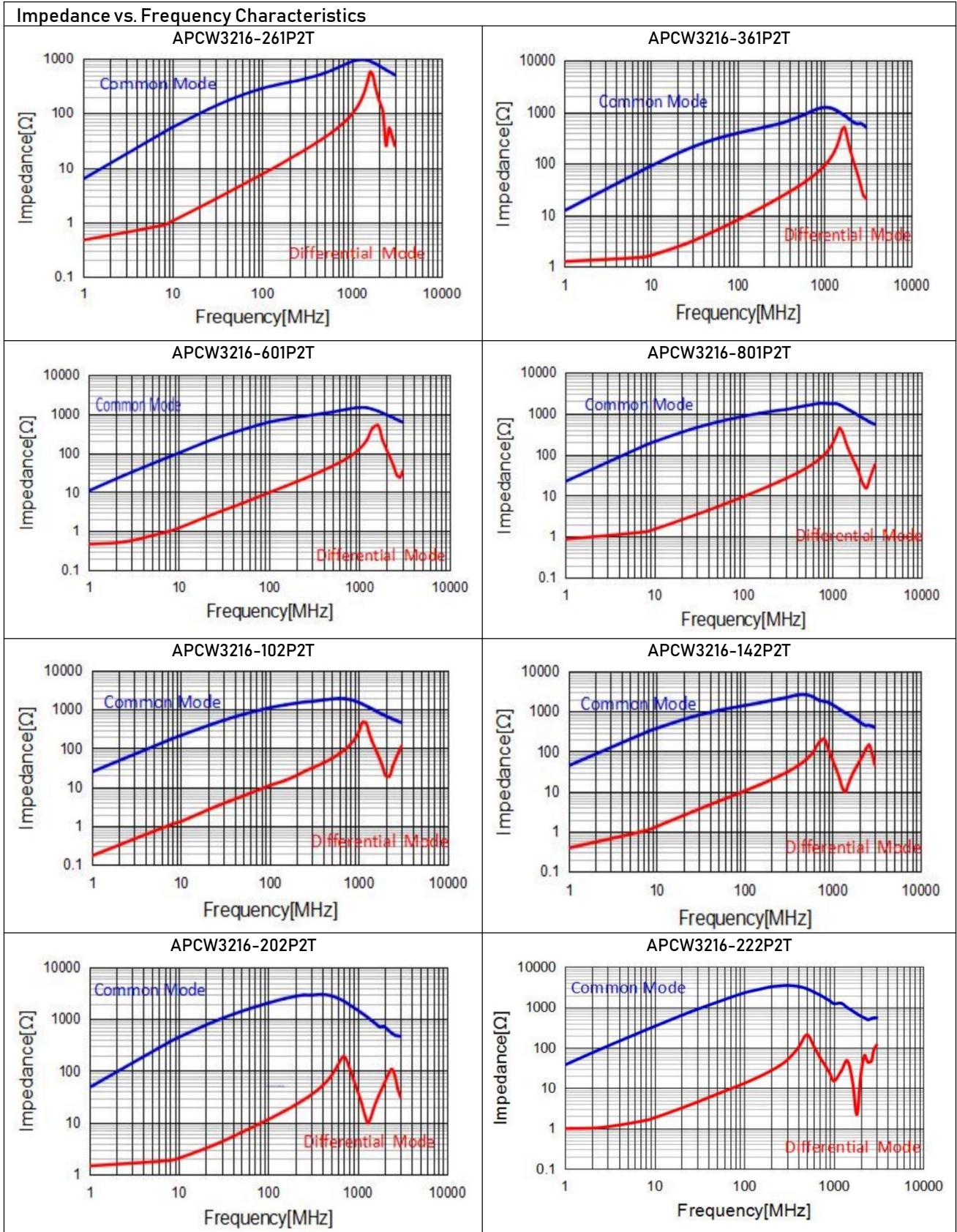
TYPICAL ELECTRICAL CHARACTERISTICS



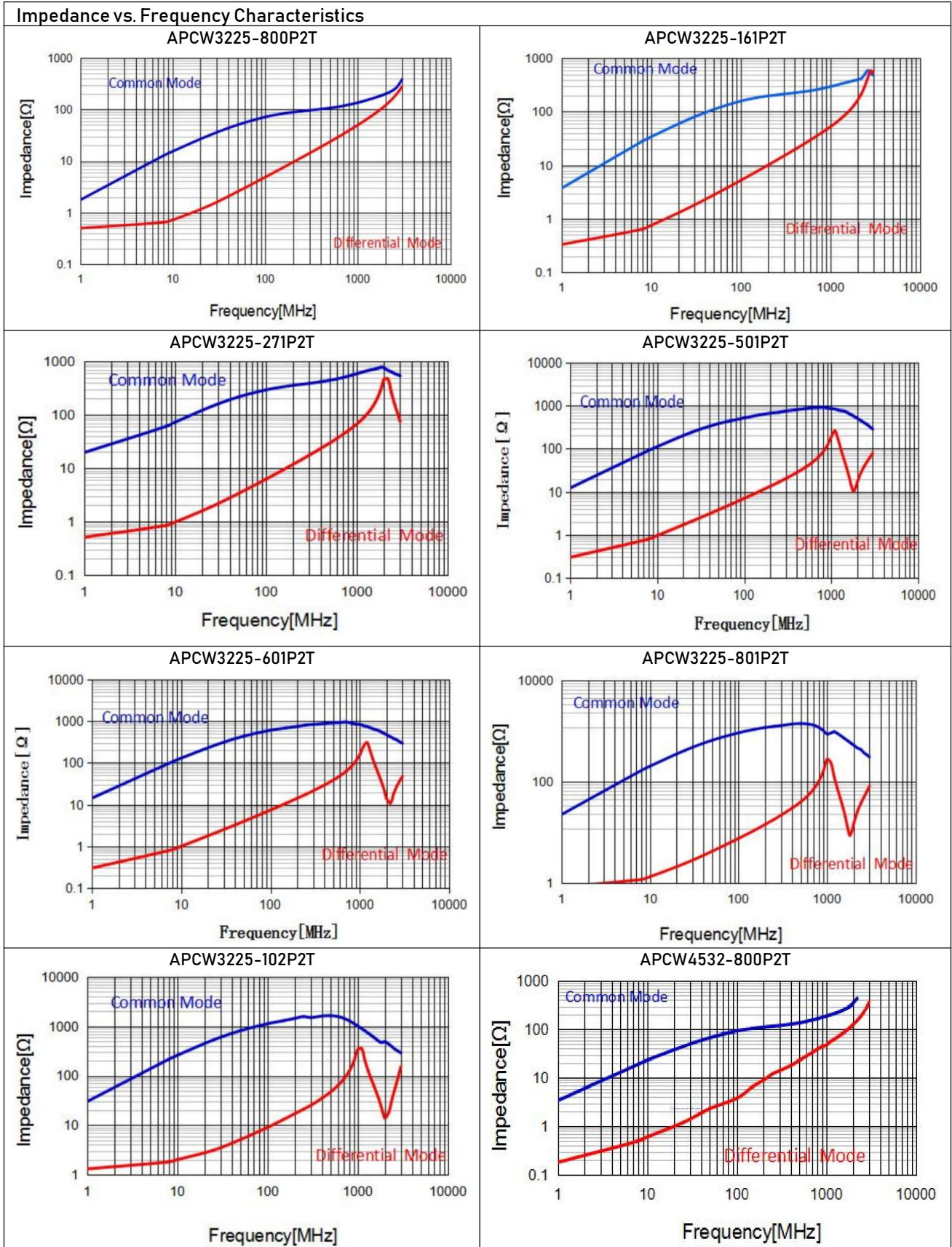
TYPICAL ELECTRICAL CHARACTERISTICS



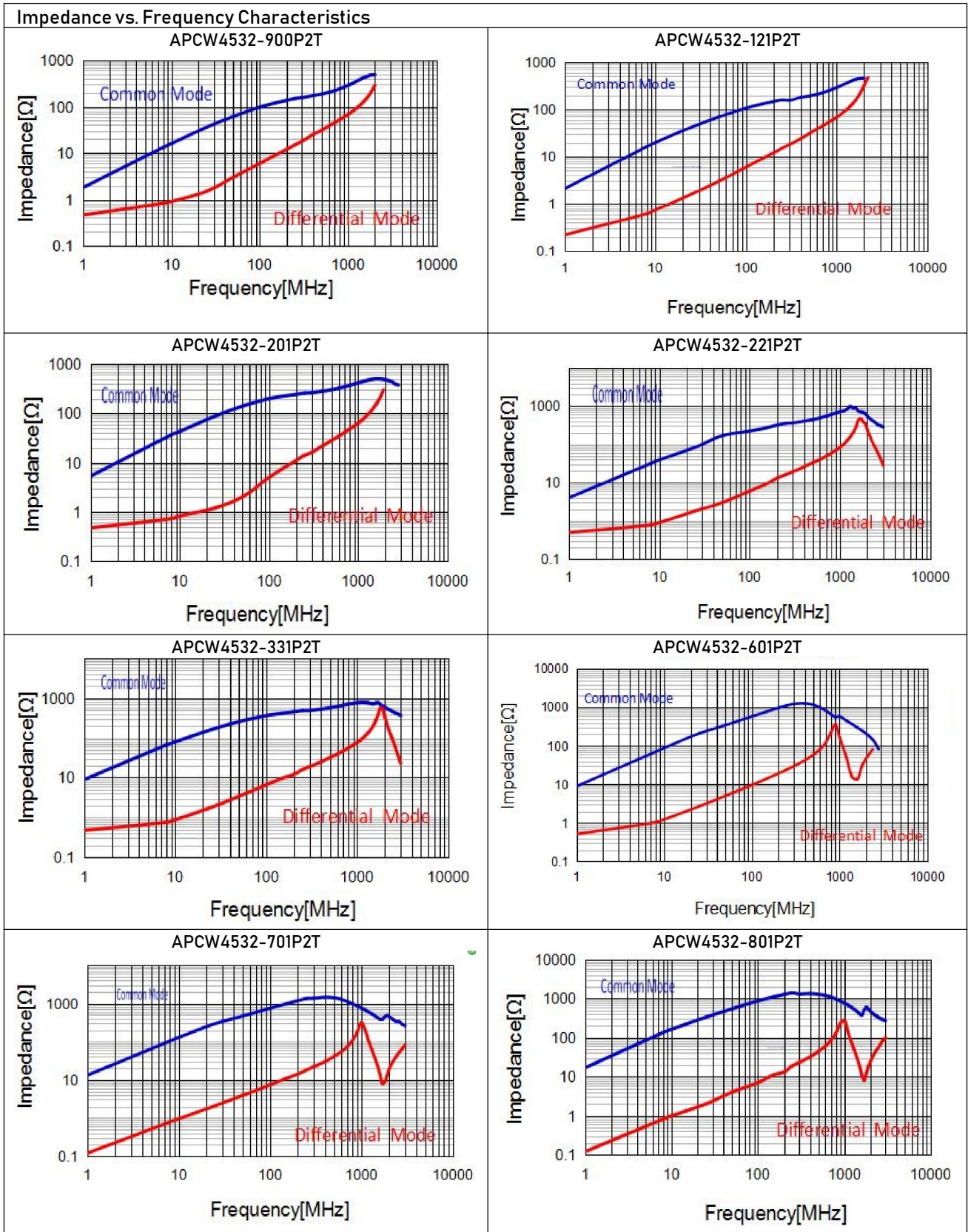
TYPICAL ELECTRICAL CHARACTERISTICS



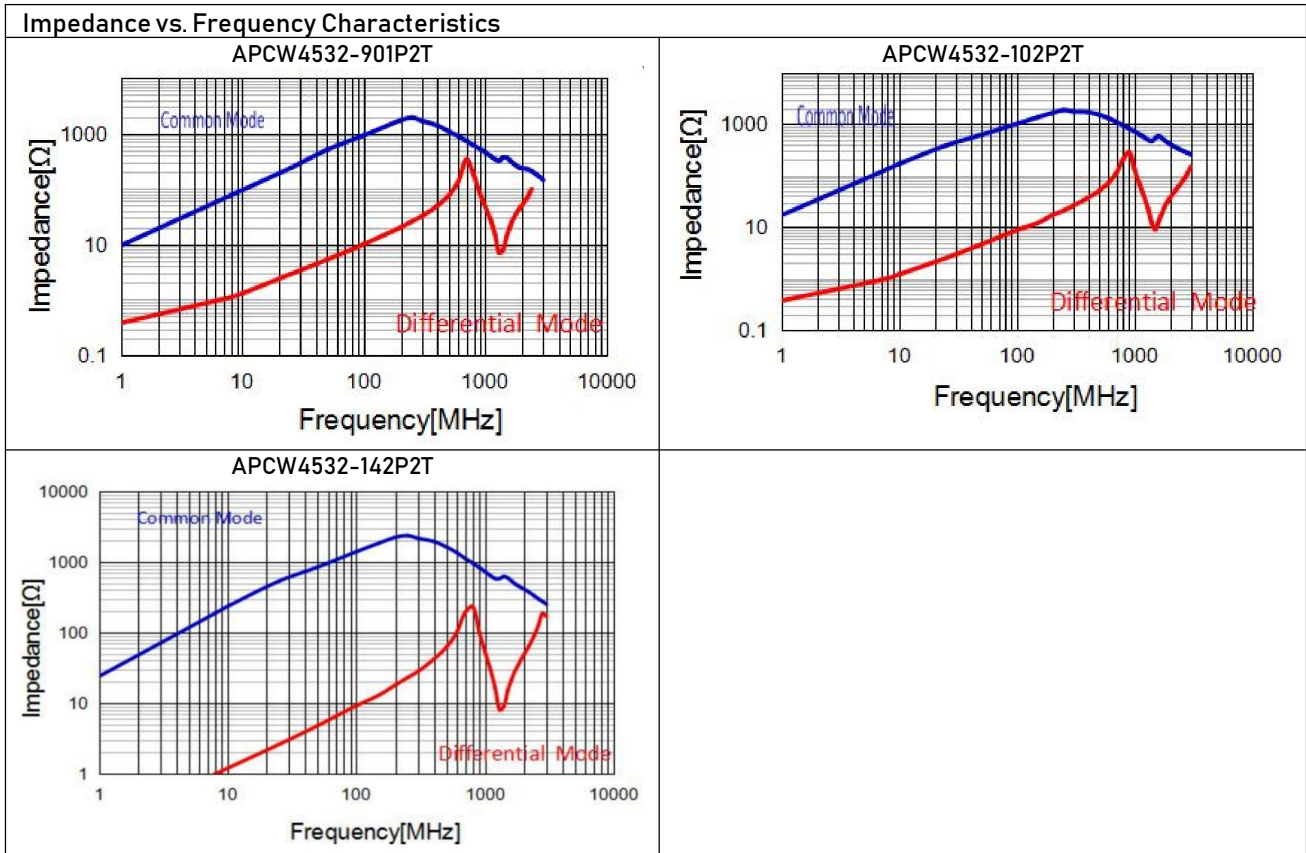
TYPICAL ELECTRICAL CHARACTERISTICS



TYPICAL ELECTRICAL CHARACTERISTICS



TYPICAL ELECTRICAL CHARACTERISTICS



Note:

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

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