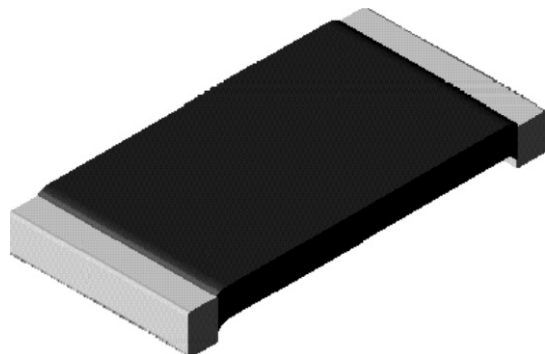


Power Metal Strip® Resistors, Very High Power (1 W) Low Value (down to 0.001 Ω), Surface Mount



FEATURES

- Very high power to foot print size ratio (1 W in 1206 package)
- Ideal for all types of current sensing and pulse applications including switching and linear power supplies, instruments, power amplifiers and shunts
- Proprietary processing technique produces extremely low resistance values (down to 0.001 Ω)
- All welded construction
- Solid metal Nickel-Chrome or Manganese-Copper alloy resistive element with low TCR (< 20 ppm/°C)
- Very low inductance 0.5 nH to 5 nH
- Excellent frequency response to 50 MHz
- Low thermal EMF (< 3 μV/°C)
- Compliant to RoHS directive 2002/95/EC



RoHS
COMPLIANT
GREEN
(5-2008)**

| STANDARD ELECTRICAL SPECIFICATIONS | | | | |
|------------------------------------|---|-----------------------|---------------|--------------------------------------|
| GLOBAL MODEL | POWER RATING $P_{70^{\circ}\text{C}}$ W | RESISTANCE RANGE Ω | | WEIGHT (typical) g/1000 pieces |
| | | ± 0.5 % | ± 1.0 % | |
| WSLP1206 | 1.0 | 0.01 to 0.05 | 0.001 to 0.05 | 16.2 |

| TECHNICAL SPECIFICATIONS | | |
|-----------------------------|--------|--|
| PARAMETER | UNIT | WSLP 1206 |
| Temperature Coefficient | ppm/°C | ± 275 for 1 mΩ to 2.9 mΩ, ± 150 for 3 mΩ to 4.9 mΩ ± 110 for 5 mΩ to 6.9 mΩ, ± 75 for 7 mΩ to 50 mΩ |
| Operating Temperature Range | °C | - 65 to + 170 |
| Maximum Working Voltage | V | $(P \times R)^{1/2}$ |

Note

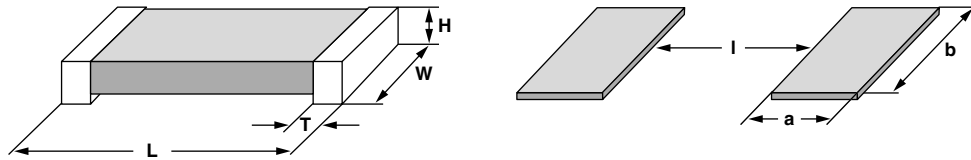
- Part Marking: Value

| GLOBAL PART NUMBER INFORMATION | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|----------------------------|---|---|---|---|---|------------------------------|---|---|--|--|
| NEW GLOBAL PART NUMBERING: WSLP1206R0100FEA | | | | | | | | | | | | | | | | | |
| W | S | L | P | 1 | 2 | 0 | 6 | R | 0 | 1 | 0 | 0 | F | E | A | | |
| GLOBAL MODEL | | | RESISTANCE VALUE | | | | TOLERANCE CODE | | PACKAGING CODE | | | | SPECIAL | | | | |
| WSLP1206 | | | L = mΩ* R = Decimal 4L000 = 0.004 Ω R0100 = 0.01 Ω * use "L" for resistance values < 0.01 Ω | | | | D = ± 0.5 % F = ± 1.0 % | | EA = Lead (Pb)-free, tape/reel EK = Lead (Pb)-free, bulk | | | | Reserved for future specials | | | | |

** Please see document "Vishay Material Category Policy": www.vishay.com/doc?99902

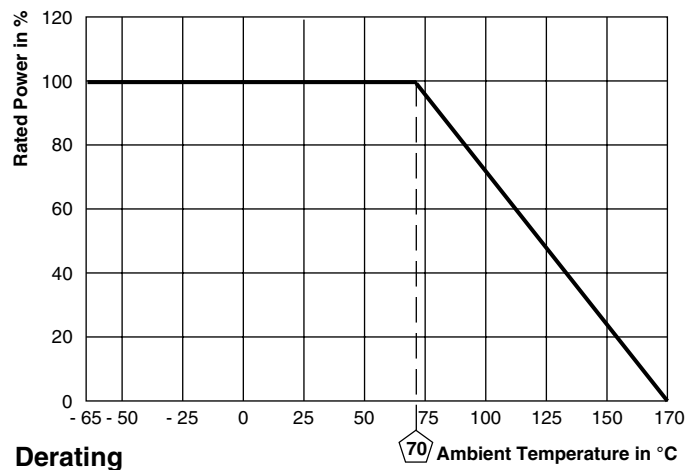
**Power Metal Strip® Resistors, Very High Power (1 W)
 Low Value (down to 0.001 Ω), Surface Mount**

Vishay Dale

DIMENSIONS


| MODEL | RESISTANCE RANGE (Ω) | DIMENSIONS in inches [millimeters] | | | |
|----------|----------------------|------------------------------------|--------------------------------|----------------------------------|----------------------------------|
| | | L | W | H | T |
| WSLP1206 | 0.001 to 0.0019 | 0.126 ± 0.010 [3.2 ± 0.254] | 0.063 ± 0.010 [1.6 ± 0.254] | 0.025 ± 0.010 [0.635 ± 0.254] | 0.041 ± 0.010 [1.04 ± 0.254] |
| | 0.002 to 0.0059 | 0.126 ± 0.010 [3.2 ± 0.254] | 0.063 ± 0.010 [1.6 ± 0.254] | 0.025 ± 0.010 [0.635 ± 0.254] | 0.025 ± 0.010 [0.635 ± 0.254] |
| | 0.006 to 0.050 | 0.126 ± 0.010 [3.2 ± 0.254] | 0.063 ± 0.010 [1.6 ± 0.254] | 0.025 ± 0.010 [0.635 ± 0.254] | 0.020 ± 0.010 [0.508 ± 0.254] |

| MODEL | RESISTANCE RANGE (Ω) | SOLDER PAD DIMENSIONS in inches [millimeters] | | |
|----------|----------------------|---|--------------|--------------|
| | | a | b | l |
| WSLP1206 | 0.001 to 0.05 | 0.062 [1.57] | 0.070 [1.78] | 0.030 [0.76] |



| PERFORMANCE | | |
|---------------------------|--|-------------------------|
| TEST | CONDITIONS OF TEST | TEST LIMITS |
| Thermal Shock | - 55 °C to + 150 °C, 1000 cycles, 15 min at each extreme | ± (0.5 % + 0.0005 Ω) ΔR |
| Low Temperature Operation | - 65 °C for 45 min | ± (0.5 % + 0.0005 Ω) ΔR |
| High Temperature Exposure | 1000 h at + 170 °C | ± (1.0 % + 0.0005 Ω) ΔR |
| Bias Humidity | + 85 °C, 85 % RH, 10 % Bias, 1000 h | ± (0.5 % + 0.0005 Ω) ΔR |
| Mechanical Shock | 100 g's for 6 ms, 5 pulses | ± (0.5 % + 0.0005 Ω) ΔR |
| Vibration | Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h | ± (0.5 % + 0.0005 Ω) ΔR |
| Load Life | 1000 h at 70 °C, 1.5 h "ON", 0.5 h "OFF" | ± (1.0 % + 0.0005 Ω) ΔR |
| Resistance to Solder Heat | + 260 °C Solder, 10 s to 12 s dwell, 25 mm/s emergence | ± (0.5 % + 0.0005 Ω) ΔR |
| Moisture Resistance | MIL-STD-202, Method 106, 0 % power, 7b not required | ± (0.5 % + 0.0005 Ω) ΔR |

| PACKAGING | | | | |
|-----------|-----------------------|-----------|-------------|------|
| MODEL | REEL | | | |
| | TAPE WIDTH | DIAMETER | PIECES/REEL | CODE |
| WSLP1206 | 8 mm/Embossed Plastic | 178 mm/7" | 4000 | EA |

Note

- Embossed Carrier Tape per EIA-481-2



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All product specifications and data are subject to change without notice.

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