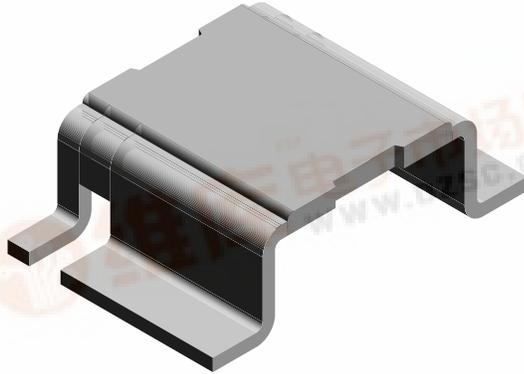


WLS4026

Vishay Dale



Power Metal Strip® Resistors, Low Value, High Power, Surface Mount



FEATURES

- High power to foot print size ratio
- Ideal for all types of current sensing, voltage division and pulse applications including switching and linear power supplies, instruments, power amplifiers and shunts
- Proprietary processing technique produces extremely low resistance values down to 0.0005 Ω
- All welded construction
- Solid metal Iron-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)



RoHS
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

| GLOBAL MODEL | POWER RATING $P_{70\text{ }^\circ\text{C}}$ W | TOLERANCE % | RESISTANCE VALUE AVAILABLE mΩ | WEIGHT (Typical) g/1000 pieces |
|--------------|---|----------------|-------------------------------------|--------------------------------------|
| WLS4026 | 3.0 | 1.0 | 0.5, 2, 3, 5 | 420 |

Notes

- Power rating depends on the max. temp. at the solder point, component placement density and the substrate material
- Part Marking: Model, value, tolerance, date code

TECHNICAL SPECIFICATIONS

| PARAMETER | UNIT | WSL RESISTOR CHARACTERISTICS |
|-----------------------------|--------|---|
| Temperature Coefficient | ppm/°C | ± 75 over temperature of + 20 °C to + 60 °C |
| Operating Temperature Range | °C | - 65 to + 170 |
| Maximum Working Voltage | V | $(P \times R)^{1/2}$ |

GLOBAL PART NUMBER INFORMATION

GLOBAL PART NUMBERING: WLS4026L5000FEA

W S L 4 0 2 6 L 5 0 0 0 F E A

| GLOBAL MODEL | RESISTANCE VALUE | TOLERANCE CODE | PACKAGING CODE | SPECIAL |
|--------------|---|----------------|---|---|
| WLS4026 | L = mΩ L5000 = 0.0005 Ω 2L000 = 0.002 Ω 3L000 = 0.003 Ω 5L000 = 0.005 Ω | F = ± 1.0 % | EA = Lead (Pb)-free, tape/reel EK = Lead (Pb)-free, bulk | (Dash number) (up to 2 digits) From 1 - 99 as applicable |





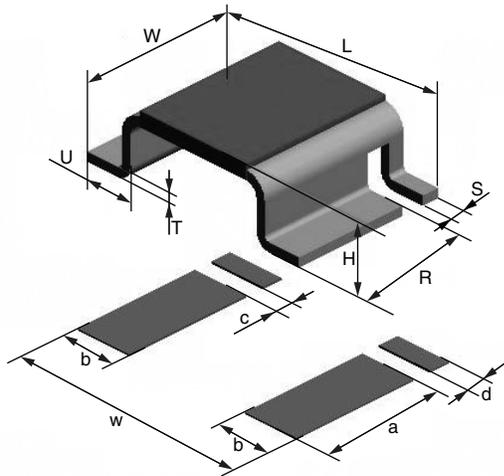
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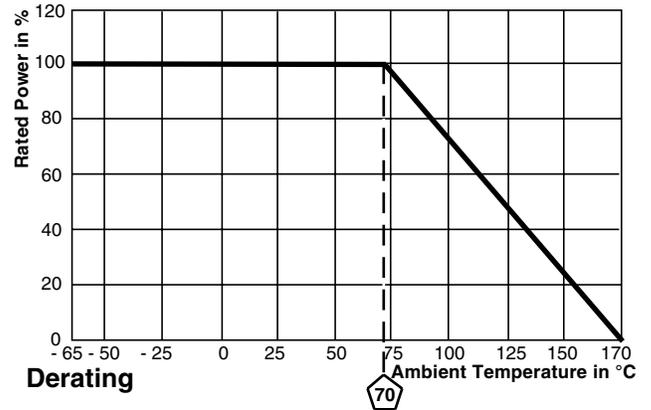
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DIMENSIONS

| MODEL | DIMENSIONS in inches [millimeters] | | | | | | |
|---------|------------------------------------|--|------------------------------|------------------------------|------------------------------|-------------------------------|------------------------------|
| | L | W | H | R | S | T | U |
| WSL4026 | 0.400 ± 0.008 [10.1 ± 0.2] | 0.260 + 0.012/- 0.008 [6.6 + 0.3/- 0.2] | 0.117 ± 0.008 [3.0 ± 0.2] | 0.039 ± 0.004 [1.0 ± 0.1] | 0.028 ± 0.004 [0.7 ± 0.1] | 0.016 ± 0.002 [0.4 ± 0.05] | 0.078 ± 0.004 [2.0 ± 0.1] |



| MODEL | SOLDER PAD DIMENSIONS in inches [millimeters] | | | | |
|---------|---|-----------------|-----------------|-----------------|-----------------|
| | a | b | c | d | w |
| WSL4026 | 0.220 [5.6] | 0.096 [2.44] | 0.035 [0.89] | 0.035 [0.89] | 0.420 [10.6] |



| 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 |
| Short Time Overload | 0.5, 2 and 3 mΩ - 5 x rated power for 5 s 5 mΩ - 3 x rated power for 5 s | ± (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 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 - 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 |
| WSL4026 | 16 mm/Embossed Plastic | 330 mm/13" | 1500 | EA |

Note

- Embossed Carrier Tape per EIA-481-2



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