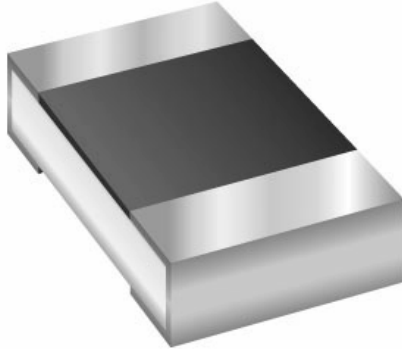


Power Metal Strip® Resistors (Extended Range), Surface Mount



FEATURES

- 0805 size resistors with 0.25 W power rating
- Smaller footprint than a 1206 resistor (uses 40 % less board space)
- Superior overload and pulse handling capability
- SMD alternative for low power leaded wirewound resistors
- Low TCR 15 ppm/K
- Low noise: < - 40 dB
- Voltage coefficient: < 0.00001 %/V (< 0.1 ppm/V)
- Very low inductance: < 0.08 µH
- Compliant to RoHS Directive 2002/95/EC



RoHS*
COMPLIANT
GREEN
(5-2009)**
Available

STANDARD ELECTRICAL SPECIFICATIONS

| GLOBAL MODEL | SIZE | POWER RATING $P_{70\text{ }^{\circ}\text{C}}$ W | LIMITING ELEMENT VOLTAGE V | TEMPERATURE COEFFICIENT \pm ppm/K | TOLERANCE \pm % | RESISTANCE RANGE Ω | E-SERIES |
|--------------|------|---|-------------------------------|--|----------------------|------------------------------|----------|
| WSE0805 | 0805 | 0.25 | $(P \times R)^{1/2}$ | 15, 25 | 0.1, 0.25, 0.5, 1.0 | 10 to 10K | 96 |

TECHNICAL SPECIFICATIONS

| PARAMETER | UNIT | WSE0805 |
|---------------------------------|--------------------|---------------|
| Dielectric withstanding voltage | V_{AC} | 200 |
| Insulation resistance | Ω | $> 10^9$ |
| Operating temperature range | $^{\circ}\text{C}$ | - 65 to + 150 |
| Weight/1000 pieces | g | 5.5 |

GLOBAL PART NUMBER INFORMATION

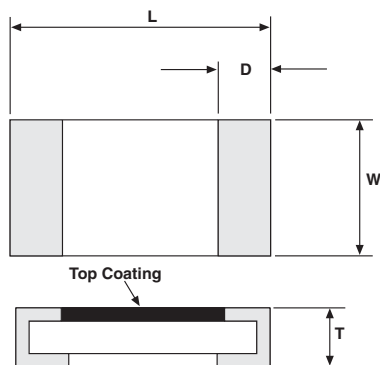
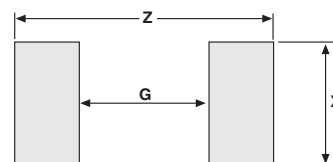
Global Part Numbering example: WSE08051K500FXEA

W S E 0 8 0 5 1 K 5 0 0 F X E A

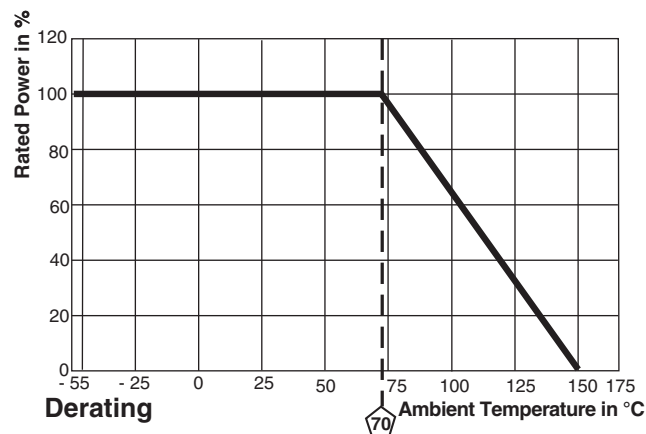
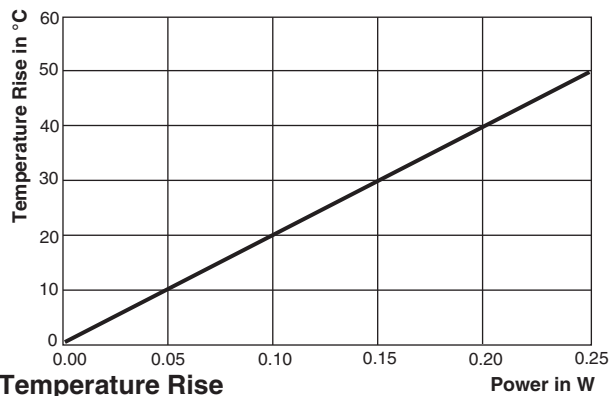
| GLOBAL MODEL | RESISTANCE VALUE | TOLERANCE CODE | TCR CODE | PACKAGING CODE | SPECIAL |
|--------------|---|---|--|--|--|
| WSE0805 | R = Decimal K = Thousand 100R0 = 100 Ω 4K000 = 4 k Ω | B = ± 0.1 % C = ± 0.25 % D = ± 0.5 % F = ± 1.0 % | X = ± 15 ppm/K E = ± 25 ppm/K | EA = Lead (Pb)-free, tape/reel EK = Lead (Pb)-free, bulk TG = Tin/Lead, tape/reel (RT1) BA = Tin/Lead, bulk (B43) | (Dash number) (Up to 2 digits) from 1 to 99 as applicable |

* Pb containing terminations are not RoHS compliant, exemptions may apply

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

DIMENSIONS

RECOMMENDED LAND PATTERN


| MODEL | DIMENSIONS in inches (millimeters) | | | | | | |
|---------|------------------------------------|--------------------------------|--------------------------------|---------------------------|--------------------------------|--------------------------------|---------------------------------|
| | D | L | W | T | G ⁽¹⁾ | X ⁽¹⁾ | Z ⁽¹⁾ |
| WSE0805 | 0.015 ± 0.005 (0.38 ± 0.13) | 0.080 ± 0.005 (2.30 ± 0.13) | 0.050 ± 0.005 (1.27 ± 0.13) | 0.025 max. (0.64 max.) | 0.028 ± 0.004 (0.70 ± 0.10) | 0.050 ± 0.004 (1.27 ± 0.10) | 0.122 ± 0.004 (3.103 ± 0.10) |

Note
⁽¹⁾ Land pattern dimensions (G, X, Z) are per IPC-782A.

PERFORMANCE

| TEST | CONDITIONS OF TEST | TEST LIMITS |
|--------------------------------|---|-------------|
| Thermal shock | - 65 °C to + 150 °C, 100 cycles, 15 min at each extreme | ± 0.10 % ΔR |
| Short time overload | 5 x rated power for 5 s | ± 0.10 % ΔR |
| Low temperature operation | - 65 °C, 0.25 W for 45 min | ± 0.05 % ΔR |
| High temperature exposure | 100 h at + 150 °C | ± 0.10 % ΔR |
| Moisture resistance | MIL-STD-202, method 106, 0 % power, 7b not required | ± 0.10 % ΔR |
| Load life | 1000 h at 70 °C, 1.5 h "ON", 0.5 h "OFF" | ± 0.05 % ΔR |
| Resistance to bonding exposure | 260 °C for 10 s | ± 0.10 % ΔR |

PACKAGING

| MODEL | REEL | | | |
|---------|--------------------|-----------|-------------|------|
| | TAPE WIDTH | DIAMETER | PIECES/REEL | CODE |
| WSE0805 | 8 mm/punched paper | 178 mm/7" | 5000 | EA |

Note

- Embossed Carrier Tape per EIA-481.



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