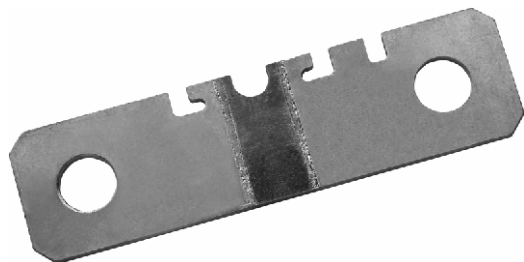


Power Metal Strip® Meter Shunt Resistor, Very Low Value (down to 0.00010 Ω)



FEATURES

- High power to resistor size ratio
- 4-terminal (Kelvin) connection design
- Proprietary processing technique produces extremely low resistance values
- All welded construction
- Very low inductance (< 0.5 nH)
- Low thermal EMF (< 3 μV/°C)
- Compliant to RoHS directive 2002/95/EC



STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	SIZE	POWER RATING $P_{70}^{\circ}\text{C W}$	TOLERANCE %	RESISTANCE VALUE RANGE Ω	RESISTANCE VALUES CURRENTLY AVAILABLE ⁽¹⁾ Ω	WEIGHT (typical)g/1000 pieces
WSMS5515	5515	3.0	5.0	50μ to 1000μ	100μ, 160μ, 200μ, 250μ, 300μ, 500μ	7800

Note

⁽¹⁾ Other values may be available, contact factory

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 325 for 100 μΩ, ± 225 for 160 μΩ, 200 μΩ, and 250 μΩ, ± 175 for 300 μΩ to 500 μΩ
Operating Temperature Range	°C	- 65 to + 170
Maximum Current Rating	A	$(P/R)^{1/2}$

GLOBAL PART NUMBER INFORMATION

GLOBAL PART NUMBERING: WSMS5515L2500JK (WSMS5515, 0.00025 Ω, ± 5 %)

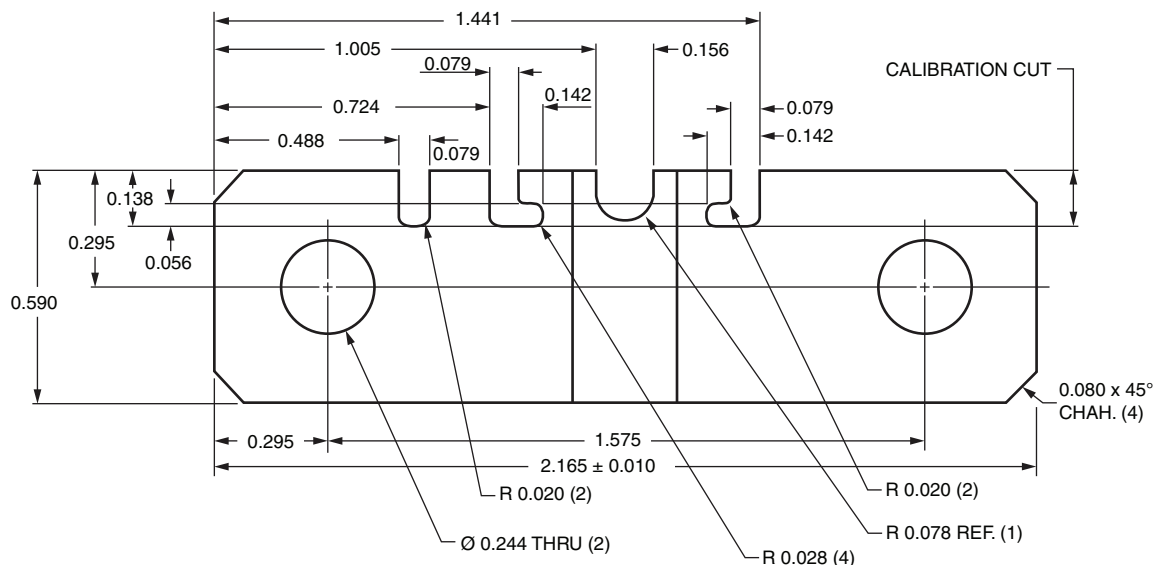
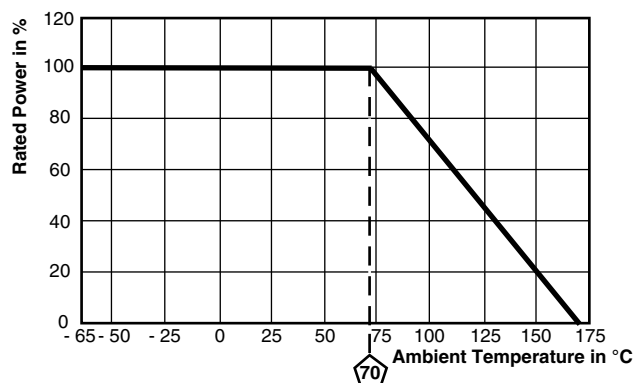
W S M S 5 5 1 5 L 2 5 0 0 J K

GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING CODE	SPECIAL
WSMS5515	L = mΩ L1000 = 0.00010 Ω L1600 = 0.00016 Ω L2000 = 0.00020 Ω L2500 = 0.00025 Ω L3000 = 0.00030 Ω L5000 = 0.00050 Ω	J = ± 5.0 %	K = Bulk pack	(Dash number) (Up to 2 digits) From 1 to 99 as applicable

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

**Power Metal Strip® Meter Shunt Resistor,
Very Low Value (down to 0.00010 Ω)**

Vishay Dale

DIMENSIONS in inches

DERATING


TOLERANCES ON DECIMALS
XXX ± 0.005

RESISTANCE VALUE ($\mu\Omega$)	RESISTOR THICKNESS (inches)	ELEMENT MATERIAL
100	0.033	Mn-Cu
160	0.051	Mn-Cu
200	0.051	Mn-Cu
250	0.033	Mn-Cu
300	0.033	Mn-Cu
500	0.059	Fe-Cr

PERFORMANCE

TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal Shock	- 55 °C to + 150 °C, 1000 cycles, 15 min at each extreme	± 0.5 % ΔR
Short Time Overload	5 x rated power for 5 s	± 0.5 % ΔR
Low Temperature Operation	- 65 °C for 45 min	± 0.5 % ΔR
High Temperature Exposure	1000 h at + 170 °C	± 1.0 % ΔR
Bias Humidity	+ 85 °C, 85 % RH, 10 % bias, 1000 h	± 0.5 % ΔR
Mechanical Shock	100 g's for 6 ms, 5 pulses	± 0.5 % ΔR
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	± 0.5 % ΔR
Load Life	1000 h at + 70 °C, 1.5 h "ON", 0.5 h "OFF"	± 1.0 % ΔR
Moisture Resistance	MIL-STD-202, method 106, 0 % power, 7b not required	± 0.5 % ΔR



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