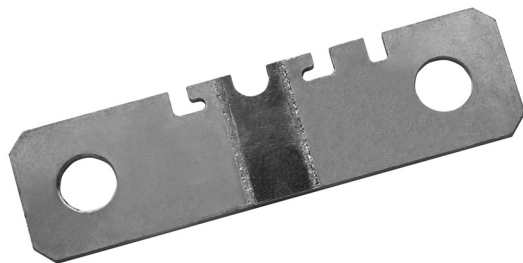


Power Metal Strip® Meter Shunt Resistor, Very Low Value (down to 0.00016 Ω)



FEATURES

- High power to resistor size ratio
- 4-Terminal (Kelvin) connection design
- Proprietary processing technique produces extremely low resistance values
- All welded construction
- RoHS compliant, lead (Pb)-free construction
- Very low inductance (< 0.5 nH)
- Excellent frequency response to 50 MHz
- Low thermal EMF (< 3 μV/°C)



RoHS
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS				
GLOBAL MODEL	POWER RATING $P_{70^{\circ}\text{C}}$ W	TOLERANCE %	RESISTANCE VALUE AVAILABLE $\mu\Omega$	WEIGHT (Typical) g
WSMS5515	3.0	5.0	160, 200, 250, 300, 500	7.8

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

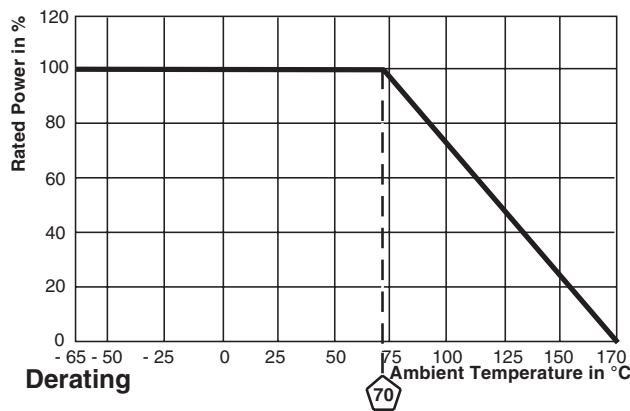
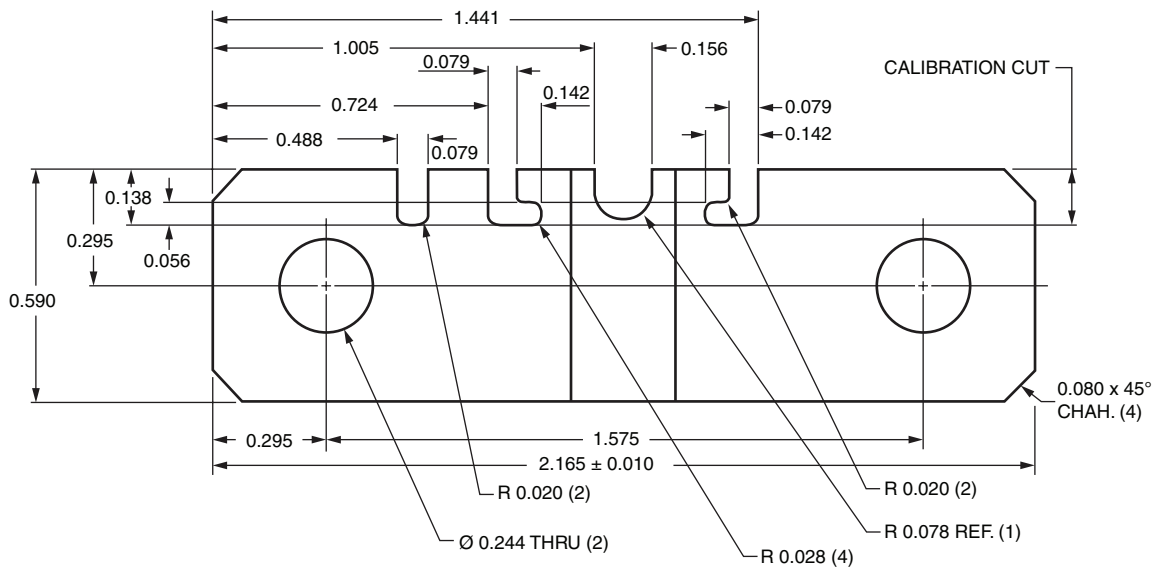
GLOBAL PART NUMBER INFORMATION																
GLOBAL PART NUMBERING: WSMS5515L2500JK (WSMS5515, 0.00025 Ω, ± 5 %)																
W	S	M	S	5	5	1	5	L	2	5	0	0	J	K		
GLOBAL MODEL		RESISTANCE VALUE				TOLERANCE CODE		PACKAGING CODE				SPECIAL				
WSMS5515		L = mΩ L1600 = 0.00016 Ω L2000 = 0.00020 Ω L2500 = 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 - 99 as applicable				



Power Metal Strip® Meter Shunt Resistor,
Very Low Value (down to 0.00016 Ω)

Vishay Dale

DIMENSIONS in inches



TOLERANCES ON DECIMALS
XXX ± 0.005

RESISTANCE VALUE (μΩ)	RESISTOR THICKNESS (inches)	ELEMENT MATERIAL
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 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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