

Power Metal Strip[®] Meter Shunt Resistor, Very Low Value (down to 0.0001 Ω)



FEATURES

- High power to resistor size ratio
- 5-terminal connection design
- Use for single or multi-phase energy meters
- Proprietary processing technique produces extremely low resistance values
- All welded construction
- Very low inductance (< 5 nH)
- Low thermal EMF (< 3 μV/°C)
- AEC-Q200 qualified
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

 AUTOMOTIVE
GRADE

RoHS
COMPLIANT

 HALOGEN
FREE
GREEN
(5-2008)

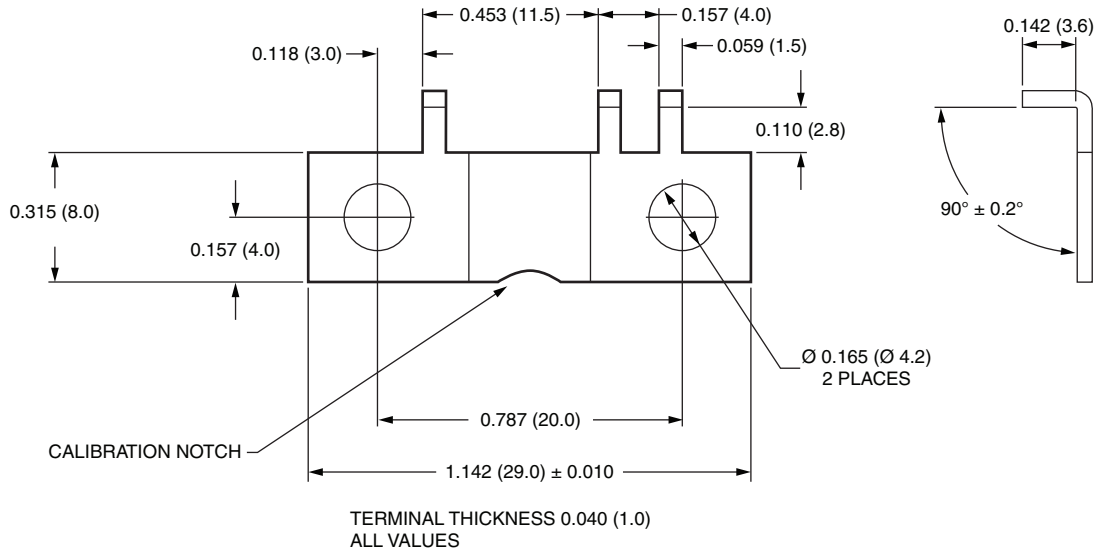
STANDARD ELECTRICAL SPECIFICATIONS						
GLOBAL MODEL	SIZE	POWER RATING $P_{70^{\circ}\text{C}}$ W	TOLERANCE %	RESISTANCE VALUE RANGE Ω	RESISTANCE VALUES CURRENTLY AVAILABLE ⁽¹⁾ Ω	WEIGHT (typical) g/1000 pieces
WSMS2908	2908	3.0	5.0	50μ to 1000μ	100μ, 250μ, 300μ, 430μ, 500μ	2100

Note
⁽¹⁾ Other values may be available, contact factory

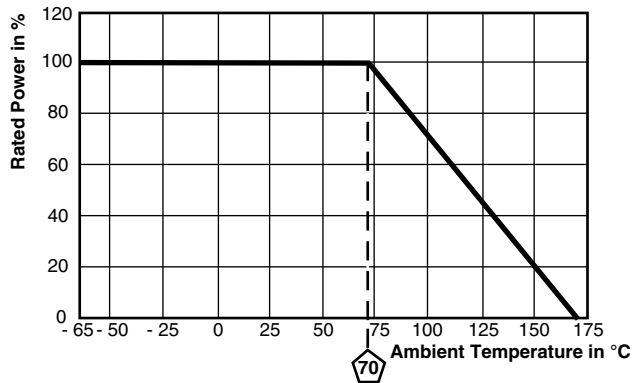
TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 1100 for 100 μΩ, ± 300 for 250 μΩ, ± 225 for 300 μΩ, ± 175 for 430 μΩ and 500 μΩ
Operating Temperature Range	°C	- 65 to + 170
Maximum Current Rating	A	$(P/R)^{1/2}$

GLOBAL PART NUMBER INFORMATION																
GLOBAL PART NUMBERING: WSMS2908L2500JK (WSMS2908, 0.00025 Ω, ± 5 %)																
W	S	K	0	6	1	2	1	L	0	0	0	F	E	A		
GLOBAL MODEL WSMS2908		RESISTANCE VALUE L = mΩ L1000 = 0.00010 Ω L2500 = 0.00025 Ω L3000 = 0.00030 Ω L4300 = 0.00043 Ω L5000 = 0.00050 Ω				TOLERANCE CODE J = ± 5.0 %		PACKAGING CODE K = Bulk pack E = Tape and reel			SPECIAL (Dash number) (Up to 2 digits) From 1 to 99 as applicable					

DIMENSIONS in inches (millimeters)



DERATING



TOLERANCES ON DECIMALS
XXX ± 0.005

RESISTANCE VALUE (μΩ)	RESISTOR ELEMENT THICKNESS (inches)	ELEMENT LENGTH	ELEMENT MATERIAL
100	0.040	0.080	Mn-Cu
250	0.059	0.276	Mn-Cu
300	0.051	0.276	Mn-Cu
430	0.038	0.315	Mn-Cu
500	0.033	0.315	Mn-Cu

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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Mouser Electronics

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