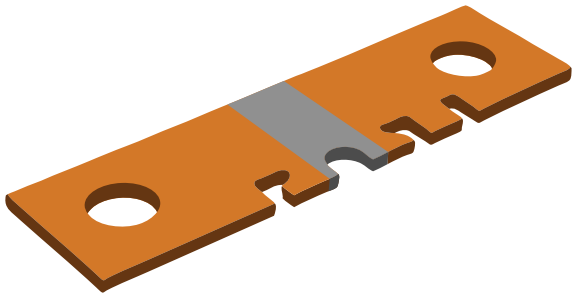
Power Metal Strip® Meter Shunt Resistor, Very Low Value (down to 0.00010 Ohms)



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)
- PATENT(S): www.vishay.com/patents
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

HALOGEN FREE

GREEN (5-2008)

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	SIZE	POWER RATING $P_{70\,°C}$ 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

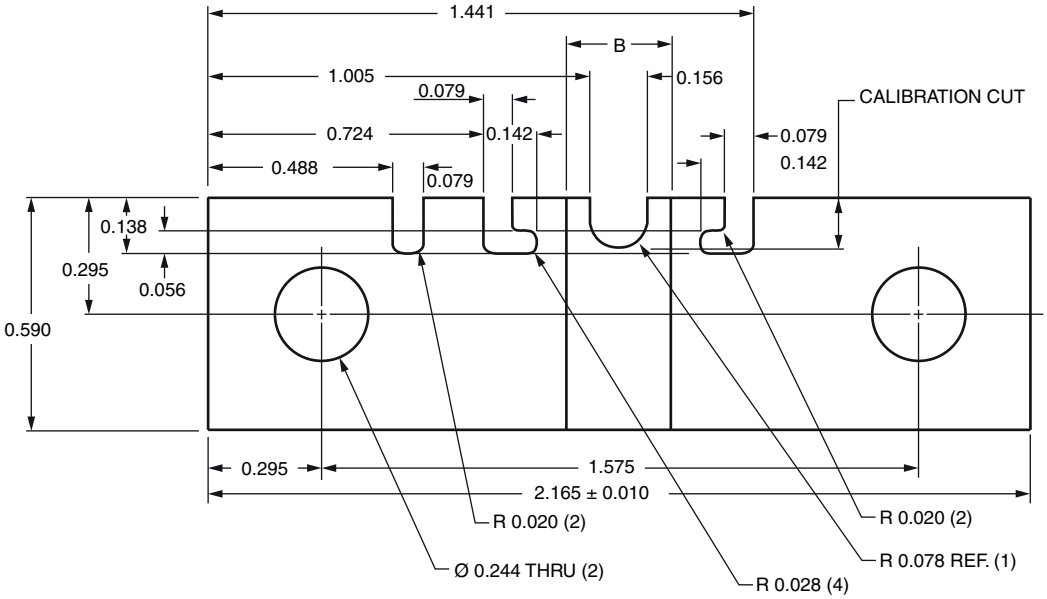
PATENT(S): www.vishay.com/patents

This Vishay product is protected by one or more United States and International patents.

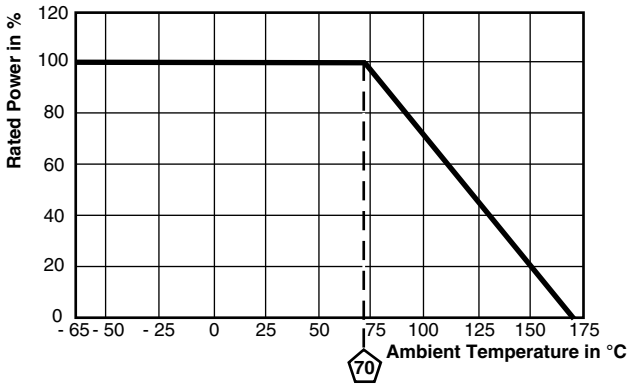
For technical questions, contact: ww2cresistors@vishay.com

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DIMENSIONS in inches



DERATING



TOLERANCES ON DECIMALS
XXX ± 0.005

RESISTANCE VALUE (μΩ)	RESISTOR THICKNESS (inches)	B DIMENSION (inches)	ELEMENT MATERIAL
100	0.033	0.116	Mn-Cu
160	0.051	0.276	Mn-Cu
200	0.051	0.276	Mn-Cu
250	0.033	0.276	Mn-Cu
300	0.033	0.276	Mn-Cu
500	0.059	0.276	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 % Δ*R*
Short time overload	5x rated power for 5 s	± 0.5 % Δ*R*
Low temperature operation	-65 °C for 45 min	± 0.5 % Δ*R*
High temperature exposure	1000 h at +170 °C	± 1.0 % Δ*R*
Bias humidity	+85 °C, 85 % RH, 10 % bias, 1000 h	± 0.5 % Δ*R*
Mechanical shock	100 *g*'s for 6 ms, 5 pulses	± 0.5 % Δ*R*
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	± 0.5 % Δ*R*
Load life	1000 h at +70 °C, 1.5 h "ON", 0.5 h "OFF"	± 1.0 % Δ*R*
Moisture resistance	MIL-STD-202, method 106, 0 % power, 7b not required	± 0.5 % Δ*R*

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