

## Power Metal Strip<sup>®</sup> Battery Shunt Resistor, Very Low Value (100 μΩ, 125 μΩ, and 250 μΩ)



### FEATURES

- High power to resistor size ratio
- Proprietary processing technique produces extremely low resistance values
- All welded construction
- Very low inductance (< 5 nH)
- Low thermal EMF (< 3 μV/°C)
- Compliant to RoHS directive 2002/95/EC



STANDARD ELECTRICAL SPECIFICATIONS						
GLOBAL MODEL	SIZE	POWER RATING $P_{70\text{ }^\circ\text{C}}$ W	TOLERANCE %	RESISTANCE VALUE RANGE $\Omega$	RESISTANCE VALUES CURRENTLY AVAILABLE <sup>(1)</sup> $\Omega$	WEIGHT (typical) g/1000 pieces
WSBS8518	8518	36	5.0	50μ to 1000μ	100μ, 125μ, 250μ	46 300

**Note**

<sup>(1)</sup> Other values may be available, contact factory

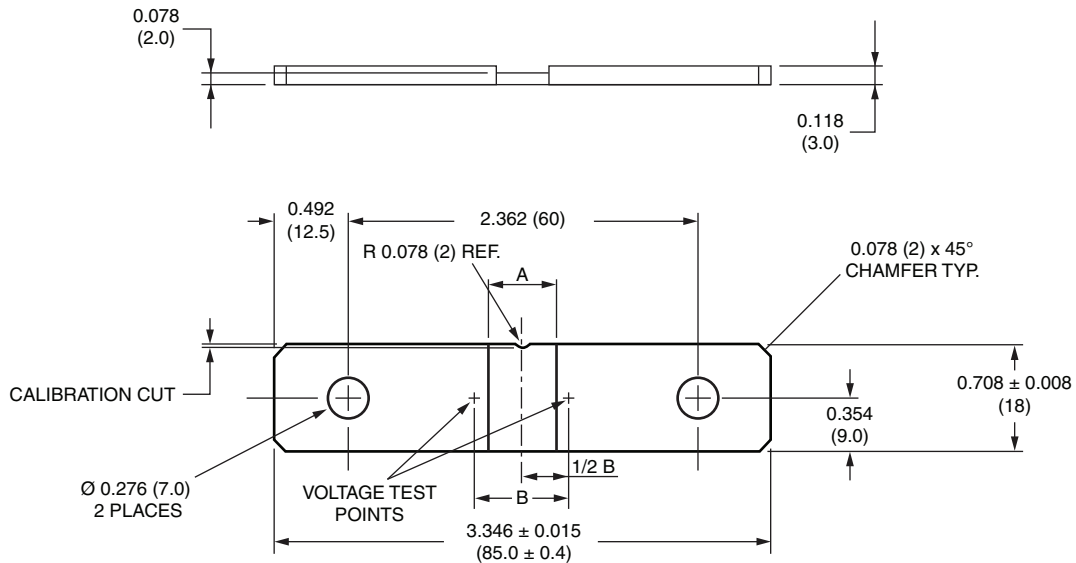
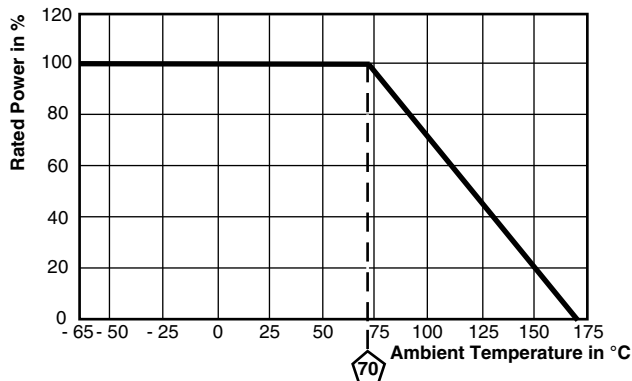
TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 225
Operating Temperature Range	°C	- 65 to + 170
Maximum Current Rating	A	$(P/R)^{1/2}$

GLOBAL PART NUMBER INFORMATION																
GLOBAL PART NUMBERING: WSBS8518L1250JK (WSBS8518, 0.000125 Ω, ± 5 %)																
W	S	B	S	8	5	1	8	L	1	2	5	0	J	K		
GLOBAL MODEL WSBS8518			RESISTANCE VALUE L = mΩ L1000 = 0.000100 Ω L1250 = 0.000125 Ω L2500 = 0.000250 Ω			TOLERANCE CODE J = ± 5.0 %		PACKAGING CODE K = Bulk pack				SPECIAL (Dash number) (Up to 2 digits) From 1 to 99 as applicable				

\*\* Please see document "Vishay Material Category Policy": [www.vishay.com/doc?99902](http://www.vishay.com/doc?99902)

**Power Metal Strip® Battery Shunt Resistor,  
Very Low Value (100 μΩ, 125 μΩ, and 250 μΩ)**

Vishay Dale

**DIMENSIONS** in inches (millimeters)

**DERATING**

 TOLERANCES ON DECIMALS  
XXX ± 0.005

UNLESS OTHERWISE LISTED

RESISTANCE VALUE (μΩ)	ELEMENT MATERIAL	DIMENSION A (inches)	DIMENSION B (inches)
100	Mn-Cu	0.37	0.495 ± 0.005
125	Mn-Cu	0.48	0.605 ± 0.005
250	Mn-Cu	0.90	1.025 ± 0.005

**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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