

## Power Metal Strip® Battery Shunt Resistor, Very Low Value (100 $\mu\Omega$ and 125 $\mu\Omega$ )



### FEATURES

- High power to resistor size ratio
- Proprietary processing technique produces extremely low resistance values
- All welded construction
- RoHS compliant, lead (Pb)-free construction
- Very low inductance (< 5 nH)
- Excellent frequency response to 50 MHz
- Low thermal EMF (< 3  $\mu\text{V}/^\circ\text{C}$ )



**RoHS**  
COMPLIANT

### STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	POWER RATING $P_{70^\circ\text{C}}$ W	TOLERANCE %	RESISTANCE VALUE $\mu\Omega$	WEIGHT (Typical) g
WSBS8518	36	5.0	100, 125	46.3

### TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/ $^\circ\text{C}$	$\pm 225$
Operating Temperature Range	$^\circ\text{C}$	- 65 to + 170
Maximum Current Rating	A	$(P/R)^{1/2}$

### GLOBAL PART NUMBER INFORMATION

GLOBAL PART NUMBERING: WSBS8518L1250JK (WSBS8518, 0.000125  $\Omega$ ,  $\pm 5\%$ )

W S B S 8 5 1 8 L 1 2 5 0 J K

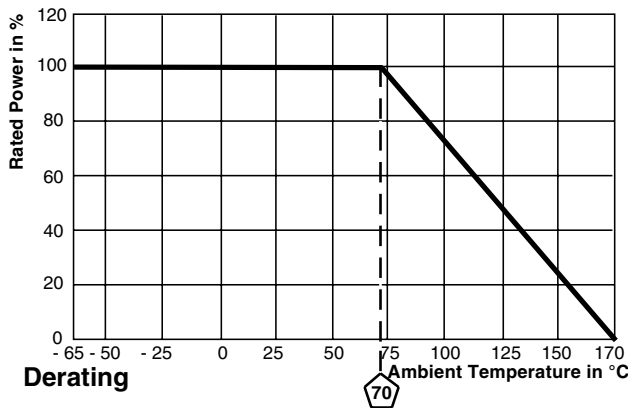
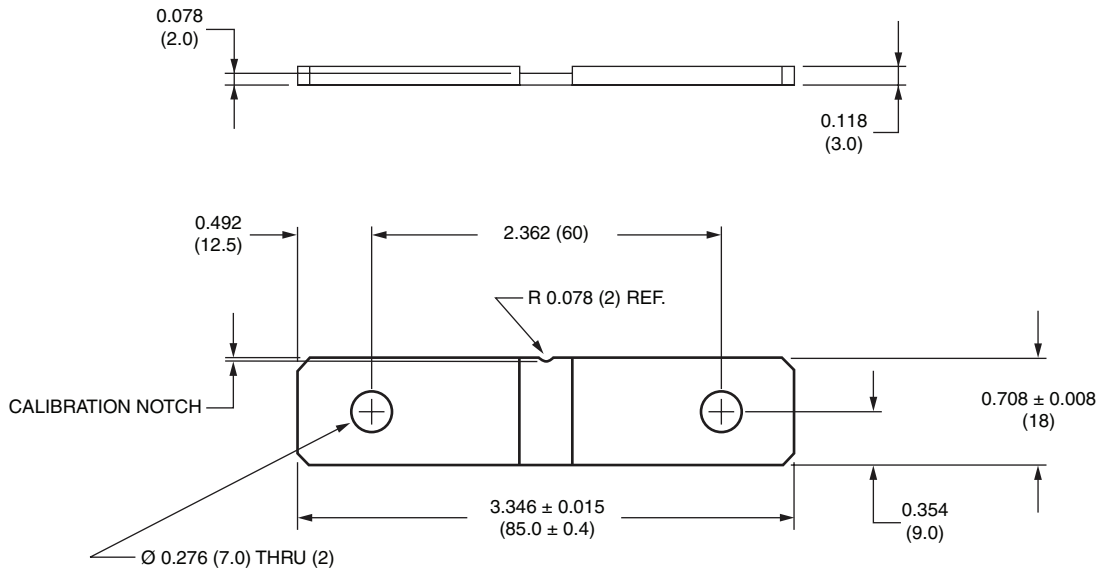
GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING CODE	SPECIAL
WSBS8518	L = m $\Omega$ L1000 = 0.000100 $\Omega$ L1250 = 0.000125 $\Omega$	J = $\pm 5.0\%$	K = Bulk pack	(Dash number) (up to 2 digits) From 1 - 99 as applicable



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Very Low Value (100 μΩ and 125 μΩ)

Vishay Dale

**DIMENSIONS** in inches (millimeters)



TOLERANCES ON DECIMALS  
XXX ± 0.005  
UNLESS OTHER WISE LISTED

RESISTANCE VALUE (μΩ)	ELEMENT MATERIAL
100	Mn-Cu
125	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 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



## Disclaimer

All product specifications and data are subject to change without notice.

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