Power Metal Strip® 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

Pb-free
RoHS COMPLIANT
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
WSBS8518	8518	36	5.0	50µ to 1000µ	100µ, 125µ, 250µ	46 300

Note
(1) 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 %)

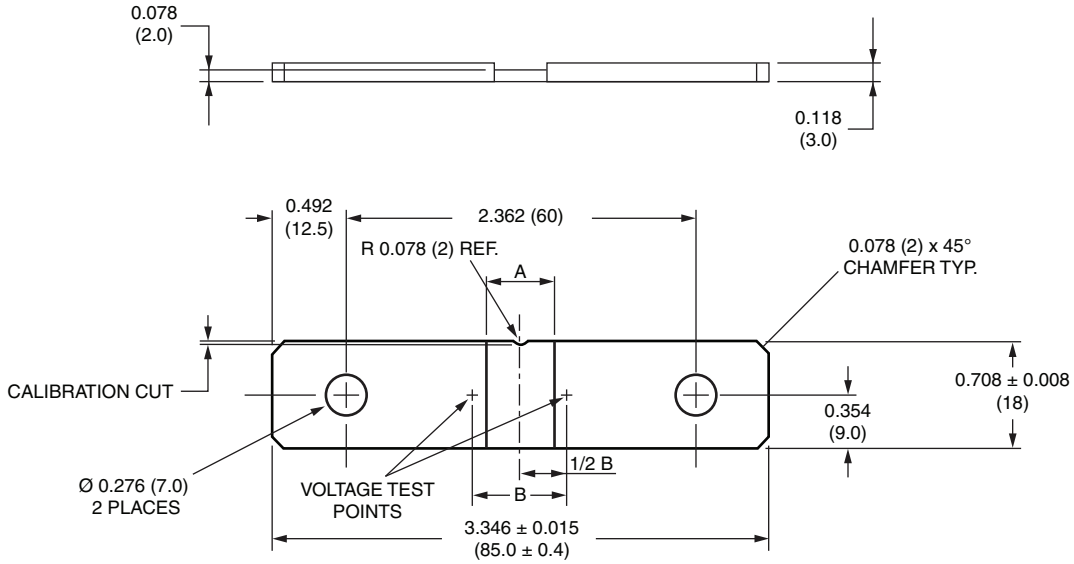
W	S	B	S	8	5	1	8	L	1	2	5	0	J	K		

GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING CODE	SPECIAL
WSBS8518	**L** = mΩ **L1000** = 0.000100 Ω **L1250** = 0.000125 Ω **L2500** = 0.000250 Ω	**J** = ± 5.0 %	**K** = Bulk pack	(Dash number) (Up to 2 digits) From **1 to 99** as applicable

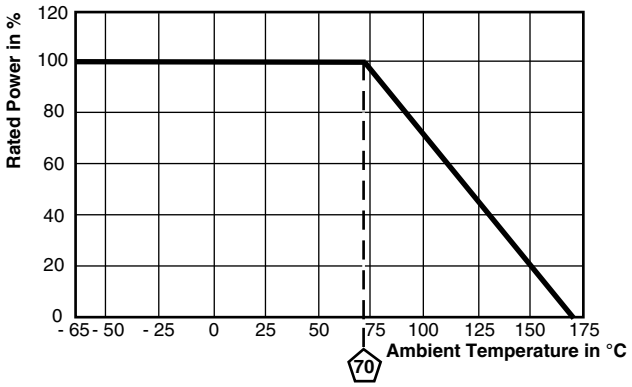
** Please see document "Vishay Material Category Policy": www.vishay.com/doc?99902

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

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 % Δ*R*
Short Time Overload	5 x 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*

Disclaimer

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

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay’s terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.