



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Power Metal Strip® Battery Shunt Resistor, Sn Plated, Very Low Value (50 μΩ, 100 μΩ, 125 μΩ, and 250 μΩ)



DESIGN TOOLS (click logo to get started)



FEATURES

- High power to resistor size ratio
- Sn plating assists with PCB mounting and corrosion protection
- Proprietary processing technique produces extremely low resistance values
- All welded construction
- Very low inductance (< 5 nH)
- Low thermal EMF (as low as < 1 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 $P_{70\text{ }^\circ\text{C}}$ W	TOLERANCE ± %	RESISTANCE VALUE RANGE Ω	RESISTANCE VALUES CURRENTLY AVAILABLE (1) Ω	WEIGHT (typical) g
WSBS8518...14	8518	36	5, 10	50μ to 1000μ	50μ, 100μ, 125μ, 250μ	50μ = 37.9, 100μ / 125μ = 36.5, 250μ = 33.7

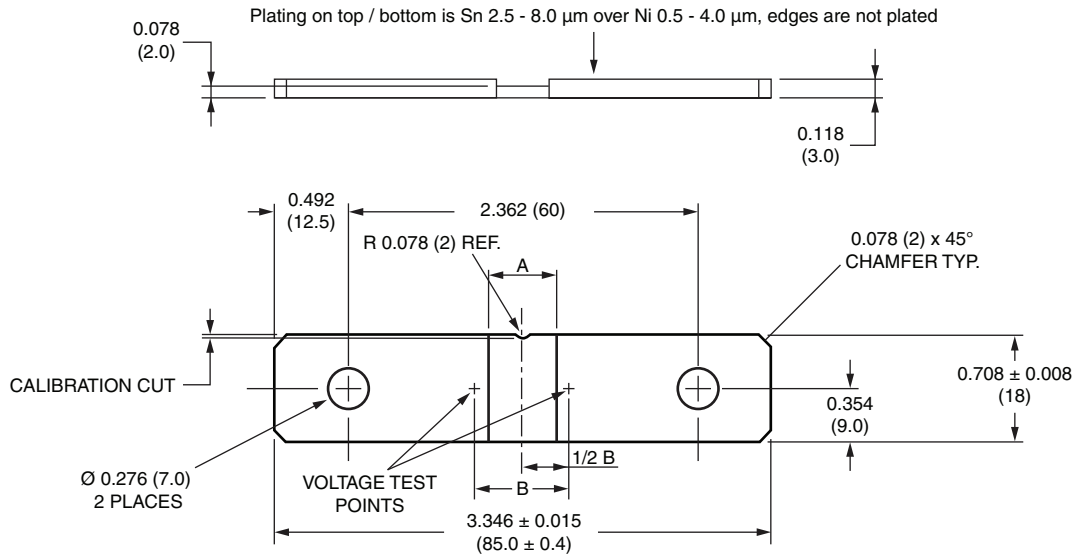
Note

(1) Other values may be available, contact factory

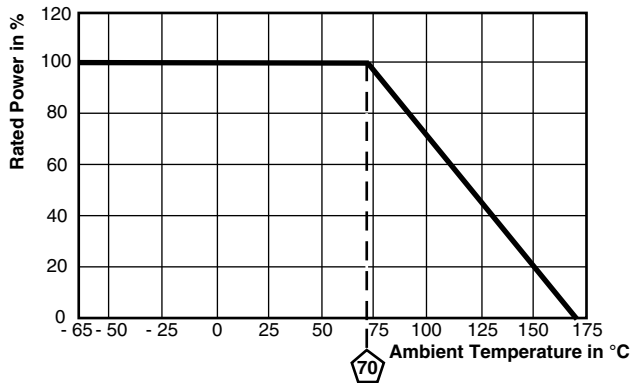
TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature coefficient	ppm/°C	± 200 for 50 μΩ
		± 175 for 100 μΩ / 125 μΩ
		± 110 for 250 μΩ
Temperature coefficient (element material)	ppm/°C	± 20
Operating temperature range	°C	-65 to +170
Thermal EMF	μV/°C	< 1 for 50 μΩ and < 3 for 100 μΩ, 125 μΩ, 250 μΩ
Maximum current rating	A	$(P/R)^{1/2}$

GLOBAL PART NUMBER INFORMATION																
GLOBAL PART NUMBERING: WSBS8518L1250JK14 (WSBS8518...14, 0.000125 Ω, ± 5 %, bulk pack)																
W	S	B	S	8	5	1	8	L	1	2	5	0	J	K	1	4
GLOBAL MODEL		RESISTANCE VALUE				TOLERANCE CODE		PACKAGING CODE				SPECIAL				
WSBS8518		L = mΩ L0500 = 0.000050 Ω L1000 = 0.000100 Ω L1250 = 0.000125 Ω L2500 = 0.000250 Ω				J = ± 5 % K = ± 10 %		K = bulk pack T = tray pack				14 = Sn plated				

DIMENSIONS in inches (millimeters)



DERATING



TOLERANCES ON DECIMALS
.xxx ± 0.005 [.x ± 0.1]
UNLESS OTHERWISE LISTED

RESISTANCE VALUE (µΩ)	ELEMENT MATERIAL	A REFERENCE	B ± 0.005 [± 0.13]
50	Mn-Cu	0.145 [3.68]	0.270 [8.71]
100	Mn-Cu	0.370 [9.40]	0.495 [12.57]
125	Mn-Cu	0.480 [12.19]	0.605 [15.37]
250	Mn-Cu	0.900 [22.86]	1.025 [26.04]

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	5x rated power for 5 s	± 0.5 % ΔR
Low temperature storage	-65 °C for 24 h	± 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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