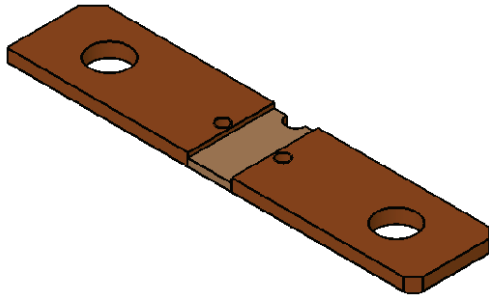


Power Metal Strip® Battery Shunt Resistor With M3 Tapped Holes Very Low Value (50 μΩ, 100 μΩ, 125 μΩ, and 250 μΩ)



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



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

DESIGN SUPPORT TOOLS click logo to get started



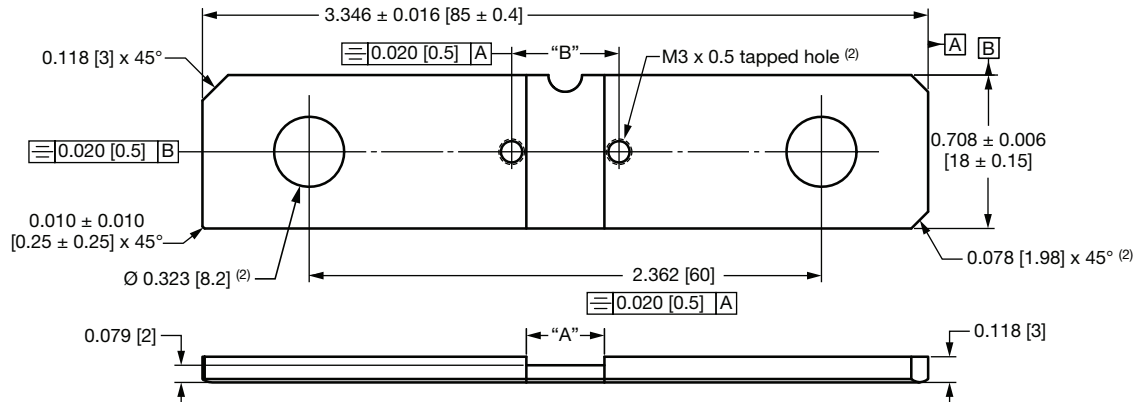
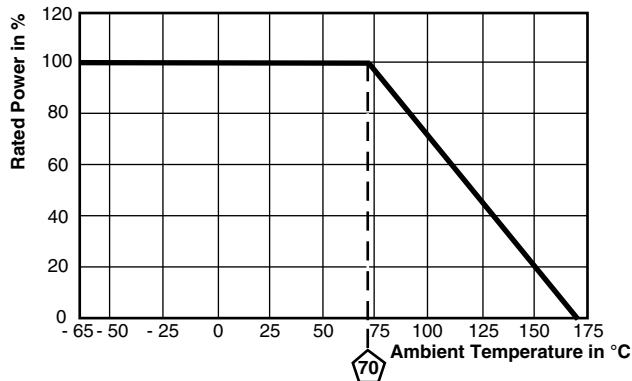
STANDARD ELECTRICAL SPECIFICATIONS						
GLOBAL MODEL	SIZE	POWER RATING $P_{70\text{ }^\circ\text{C}}$ W	TOLERANCE ± %	RESISTANCE VALUE RANGE Ω	RESISTANCE VALUES CURRENTLY AVAILABLE ⁽¹⁾ Ω	WEIGHT (typical) g
WSBS8518...M3	8518	36	5, 10	50μ to 250μ	50μ, 100μ, 125μ, 250μ	50μ = 37.9, 100μ / 125μ = 36.5, 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
Maximum current rating	A	$(P/R)^{1/2}$

GLOBAL PART NUMBER INFORMATION															
GLOBAL PART NUMBERING: WSBS8518L1000JTM3 (WSBS8518-M3, 0.000100 Ω, ± 5 %, tray pack)															
W	S	B	S	8	5	1	8	L	1	0	0	J	T	M	3
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			M3 = M3 tapped holes				

DIMENSIONS in inches (millimeters)

DERATING

 TOLERANCES ON DECIMALS
 $.xxx \pm 0.005$ [$.x \pm 0.1$]

UNLESS OTHERWISE LISTED

RESISTANCE VALUE ($\mu\Omega$)	ELEMENT MATERIAL	A REFERENCE	B ± 0.005 [± 0.13]
50	Mn-Cu	0.145 [3.7]	0.281 [7.1]
100	Mn-Cu	0.360 [9.1]	0.495 [12.6]
125	Mn-Cu	0.454 [11.5]	0.590 [15.0]
250	Mn-Cu	0.900 [22.86]	1.036 [26.3]

PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal shock	-55 °C to +150 °C, 1000 cycles, 15 min at each extreme	$\pm 0.5\% \Delta R$
Short time overload	5x rated power for 5 s	$\pm 0.5\% \Delta R$
Low temperature storage	-65 °C for 24 h	$\pm 0.5\% \Delta R$
High temperature exposure	1000 h at +170 °C	$\pm 1.0\% \Delta R$
Bias humidity	+85 °C, 85 % RH, 10 % bias, 1000 h	$\pm 0.5\% \Delta R$
Mechanical shock	100 g's for 6 ms, 5 pulses	$\pm 0.5\% \Delta R$
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	$\pm 0.5\% \Delta R$
Load life	1000 h at +70 °C, 1.5 h "ON", 0.5 h "OFF"	$\pm 1.0\% \Delta R$
Moisture resistance	MIL-STD-202, method 106, 0 % power, 7b not required	$\pm 0.5\% \Delta R$



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