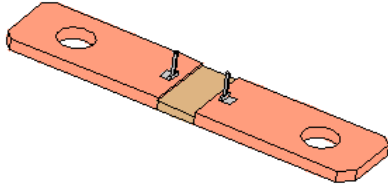




SBZ-P-8518 Series

Low Ohmic EB Welded Precision Resistor



Features

- High Conductivity Copper Terminals
- Superior Sense Pin Design
- Excellent Long Term Stability
- Low Inductance
- Low Thermal EMF
- Tinned Terminals available on request
- RoHS and REACH Compliant
- AEC-Q200 Compliant

Applications

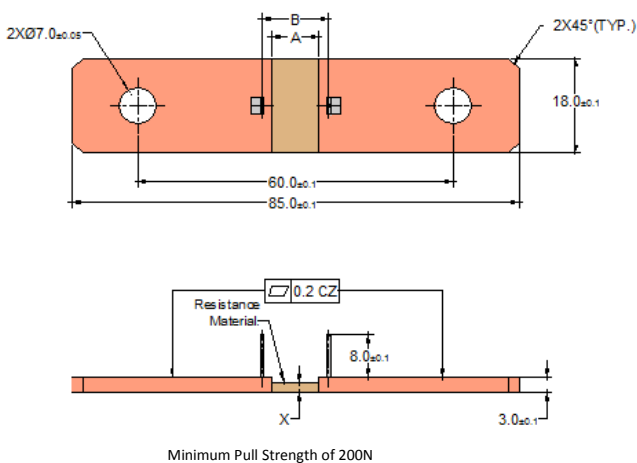
- Current Sensing for BMS (Battery Management Systems)



Technical Data		
Resistance Values	0.05, 0.1, 0.125, 0.2, 0.25, 0.3, 0.5, 1	(mΩ)
Tolerance	5	(%)
TCR - Temperature Coefficient (Resistive Alloy)	<±10 (CuMn Alloy) <+25(AICr Alloy)	(ppm/°C)
TCR - Temperature Coefficient (Shunt)	< ± 150	(ppm/°C)
Applicable Temperature Range	-55 to +170	°C
Power Rating ($P_{70°C}$ / $P_{100°C}$) for 100μΩ	36 / 15	W
Inductance	<5	nH
Thermal EMF	< 3	μV/°C
Stability Deviation	< 0.5 after 2000 Hours, $T_t = 110°C$	%
* T_t = Terminal Temperature	< 1.0 after 2000 Hours, $T_t = 140°C$	%

Table 1

Hole Diameter 8.3 available on request

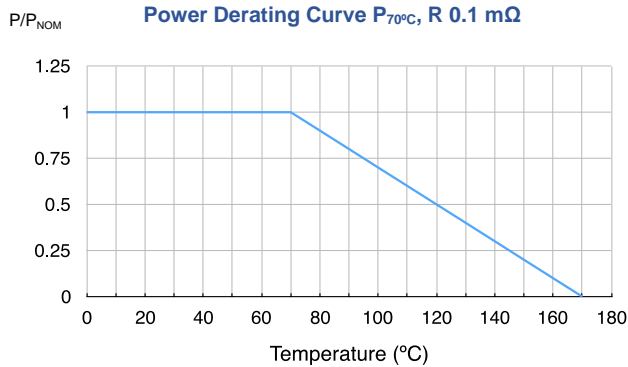


Resistance Value (mΩ)	X ±0.10	A ±0.50	B ±0.10	Ordering Code
0.05	2.00	4.65	7.50	SBZ-P-CM1-R00005-8518-T
0.10	2.00	9.40	12.50	SBZ-P-CM1-R0001-8518-T
0.125	2.00	12.19	14.86	SBZ-P-CM1-R000125-8518-T
0.20	2.00	16.50	19.70	SBZ-P-CM2-R0002-8518-T
0.25	2.00	22.86	26.11	SBZ-P-CM1-R00025-8518-T
0.30	2.00	7.4	10.6	SBZ-P-AC-R0003-8518-T
0.50	2.00	12.80	15.80	SBZ-P-AC-R0005-8518-T
1.00	2.00	25.6	28.60	SBZ-P-AC-R001-8518-T



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Performance:

Type of Test	Reference Standard	Test Specifications	Acceptance Criteria
High Temperature Exposure	MIL-STD-202 Method 108	1000 hrs. @ T=170°C.Unpowered.	ΔR +/-1%
Temperature Cycling	JESD22 Method JA-104	-55°C to 150°C, 1000Cycles, 30 minutes at each extreme	ΔR +/-0.5%
Biased Humidity	MIL-STD-202 Method 103	85°C & 85RH with 10% operating power, 1000 hrs.	ΔR +/-0.5%
Operational Life	MIL-STD-202 Method 108	125°C at rated power,1000 hrs.	ΔR +/-1%
External Visual	MIL-STD-883 Method 2009	Visual inspection	Visual
Physical Dimension	JESD22 Method JB-100	Dimensional inspection as per SBCL Specifications	Shall confirm within tolerance limits
Resistance to Solvents	MIL-STD-202 Method 215	Clean with Aqueous chemical	Marking shall be legible
Mechanical Shock	MIL-STD-202 Method 213	100g for 6ms, Half sine	ΔR +/-0.2%
Vibration	MIL-STD-202 Method 204	5g for 20 minutes, 12 cycles each of 3orientations.10-2000Hz	ΔR +/-0.2%
Resistance to Soldering Heat	MIL-STD-202 Method 210	Solder Temp. 260°C, Time 10 seconds	ΔR +/-0.5%
Solderability	J-STD-002	As per J-STD-002	>95% Coverage in 10x Magnification
Electrical Characterization	User Spec.	Resistance as defined	Shall confirm within tolerance limits
Short Time Over Load	--	5x Rated Power for 5 seconds	ΔR +/-1%
Low Temperature Storage	--	-65°C for 24 hrs.	ΔR +/-0.2%
Moisture Resistance	MIL-STD-202 Method 106	Unpowered, 7b Not Applicable	ΔR +/-0.5%

Packaging:

Tray Packing