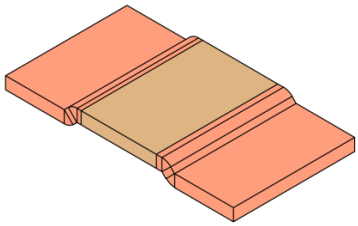
SBB(S) -5930Series- R00025

Low Ohmic EB Welded SMD Precision Resistor



Features

- High Conductivity Copper Connectors
- Excellent Long Term Stability
- High Application Temperature Range -55ºC to +170ºC
- Max. Solder Temperature up to 350°C / 30Sec
- Flame Resistant
- Solid Metal Construction
- RoHS and REACH Certified
- AEC-Q200 Qualified

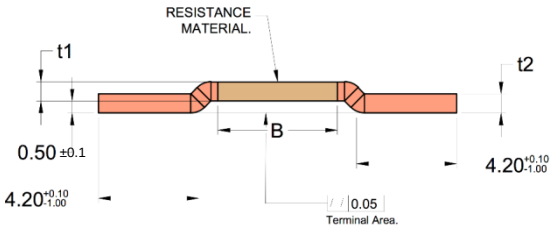
Applications

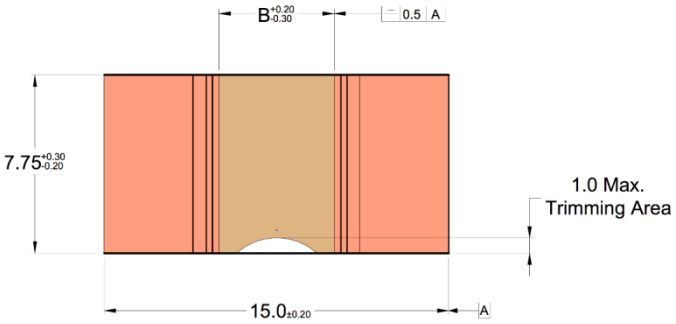
- Current Sensing/ Feedback
- Automotive Applications
- Power Modules
- Frequency Convertors
- Inverters
- Low Inductance Applications

Technical Data		Table 1
Resistance Values	0.25 mΩ	(mΩ)
Tolerance	1, 3, 5	(%)
Applicable Temperature Range	-55 to +170	ºC
Load Capacity	See Table 2	-
Inductance	<3	nH
Stability Deviation	< 0.5 after 2000 Hours, T_t^*= 110ºC	%
	< 1.0 after 2000 Hours, T_t^*= 140ºC	%

* T_t = Terminal Temperature

Type	Resistance Value (mΩ)	Material	t1±0.1 (mm)	t2±0.1 (mm)	TCR (ppm)	P70ºC (W)	P100ºC (W)	B (mm)
SBB(S)-CM2-R00025	0.25	Copper Manganese Alloy	1.12	1.12	< 100	10	8	5





All dimensions are in mm.

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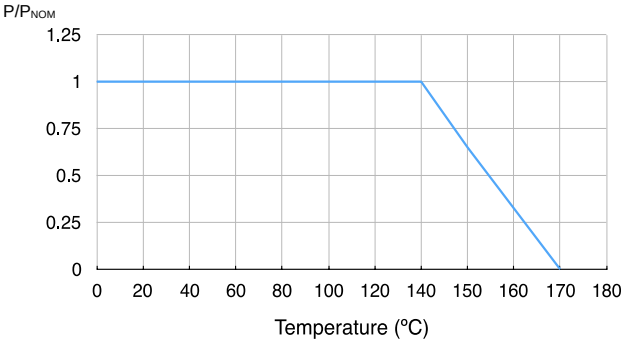
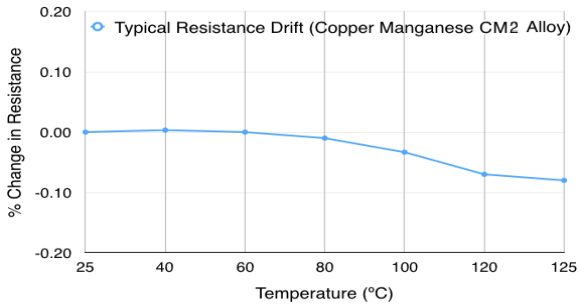
Power Derating Curve



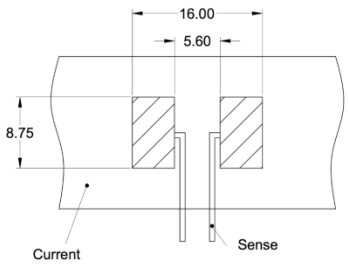
Resistance Change vs Temperature



Performance:

Type of Test	Reference STD	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 3 orientations.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%

PCB Layout (Solder Pads):



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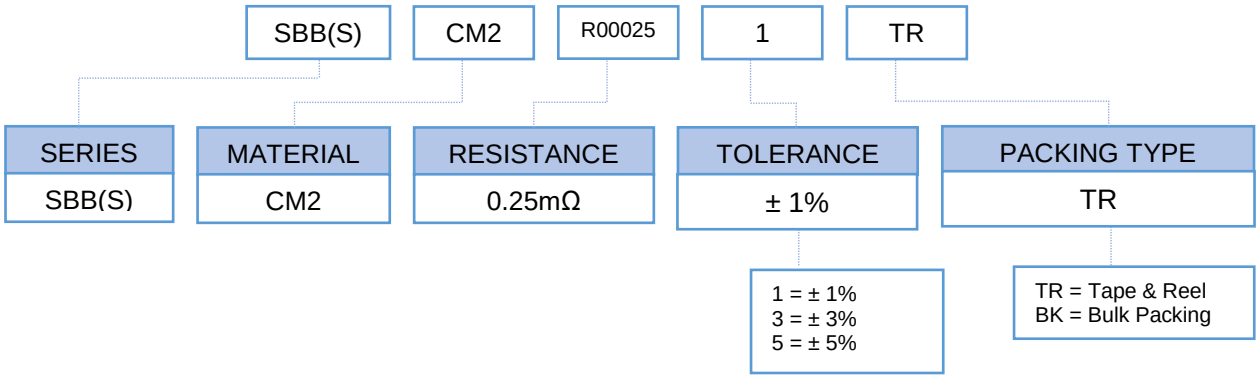
Example of ordering Code

SBB(S)-CM2-R00025-1-TR



Packing

Reel Information	
Reference Standard	DIN EN 60286-3
Width of Reel	24 mm
Number of parts per Reel	2000 pcs