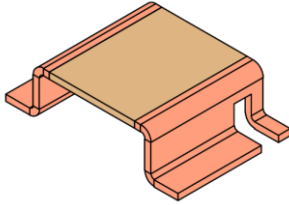




SBC - 4026 Series

Low Ohmic EB Welded SMD Precision Resistor



Features

- 3-Watts Permanent Power (0.3 to 2 mΩ)
- Constant Current up to 160 amps (0.2 mΩ)
- Four Terminal Configuration
- Excellent Long Term Stability
- Max. Solder Temperature up to 350°C / 30Sec
- RoHS and REACH Certified
- AEC-Q200 Qualified

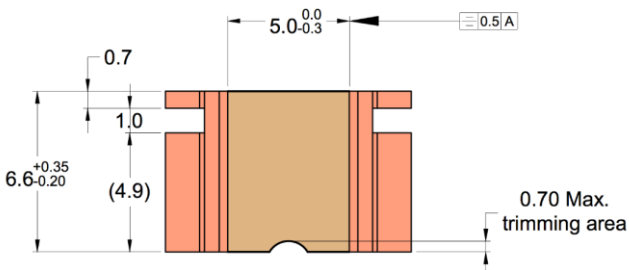
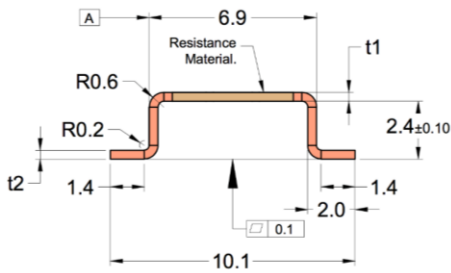
Applications

- Current Sensing / Feedback
- Automotive Applications
- Power Modules
- Frequency Convertors



Technical Data		
Resistance Values	0.2, 0.3, 0.5, 0.7, 1, 2, 3, 4, 5	(mΩ)
Tolerance	1, 5	(%)
TCR - Temperature Coefficient (Resistive Alloy)	< ±10 (Copper Manganese Alloys), < -25 (Aluchrom Alloy)	(ppm/K)
Applicable Temperature Range	-55 to +170	°C
Load Capacity	See Table 2	-
Inductance	< 3	nH
Stability Deviation	< 0.5 after 2000 Hours, $T_i^* = 110^\circ\text{C}$	%
* T_i = Terminal Temperature	< 1.0 after 2000 Hours, $T_i^* = 140^\circ\text{C}$	%

Table 1

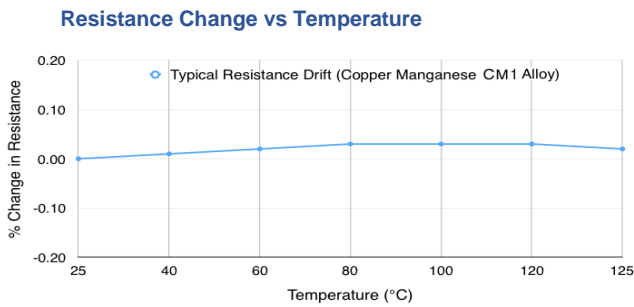
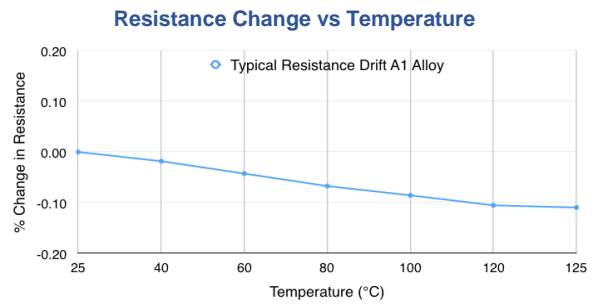
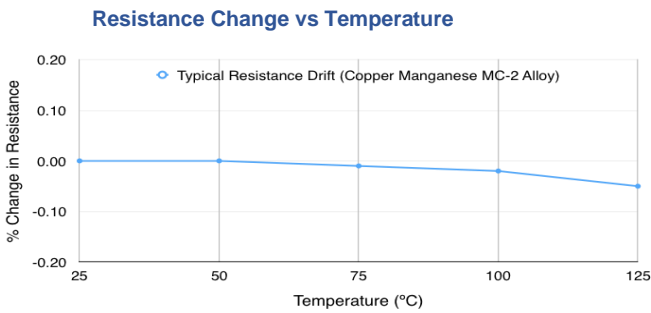
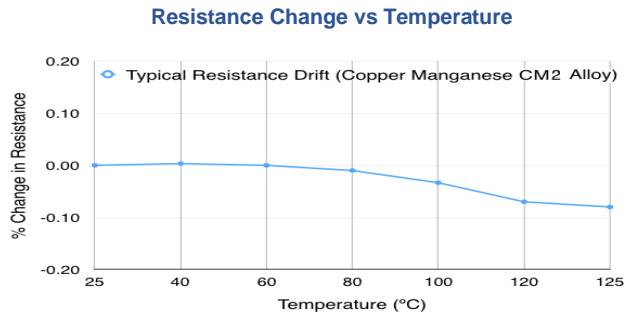
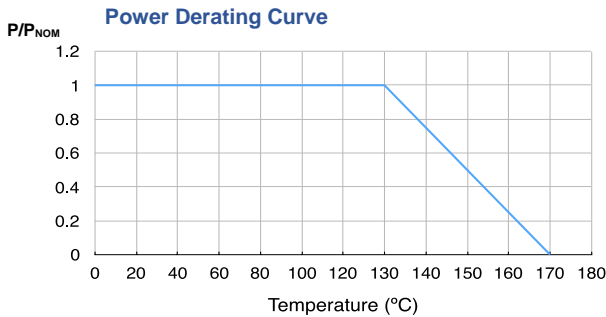


Dimensions are in mm, See table 2 for thickness.



SBC - 4026 Series

Low Ohmic EB Welded SMD Precision Resistor



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%

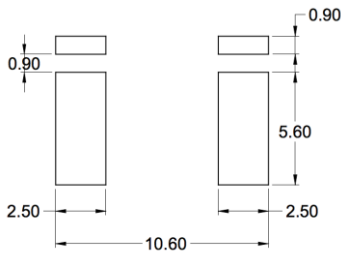


SBC - 4026 Series

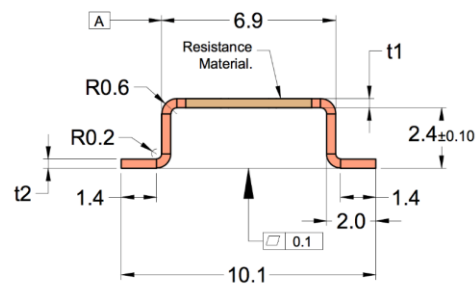
Low Ohmic EB Welded SMD Precision Resistor

Type	Resistance Value (mΩ)	Material	t1 (mm) Alloy	t2 (mm) Alloy	TCR (ppm)	P _{70°C} (W)	P _{100°C} (W)
SBC-MC2-R0002	0.2	Copper Manganese Alloy	1.20	0.40	< 50	12	5
SBC-CM1-R0003	0.3	Copper Manganese Alloy	0.99	0.40	< 50	10	5
SBC-CM1-R0005	0.5	Copper Manganese Alloy	0.65	0.40	< 50	9	5
SBC-CM2-R0007	0.7	Copper Manganese Alloy	0.47	0.40	< 50	8	5
SBC-CM2-R001	1.0	Copper Manganese Alloy	0.35	0.40	< 50	7	4
SBC-A1-R002	2.0	Aluchrom Alloy	0.50	0.40	< 50	7	4
SBC-A1-R003	3.0	Aluchrom Alloy	0.34	0.40	< 50	5	3
SBC-A1-R004	4.0	Aluchrom Alloy	0.34	0.40	< 50	4	2
SBC-A1-R005	5.0	Aluchrom Alloy	0.34	0.40	< 50	3	2

Table 2



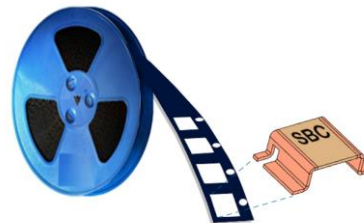
PCB Layout (Solder Pads) (mm)



Mechanical Dimensions (mm)

Reel Information

Reference Standard	DIN EN 60286-3
Width of Reel	24 mm
Number of parts per Reel	1400 pcs



Example of Ordering Code

SBC-CM2-R0007-1-TR

