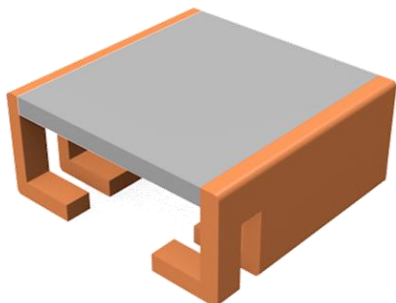


MBB series / Surface Mount Shunt Resistor



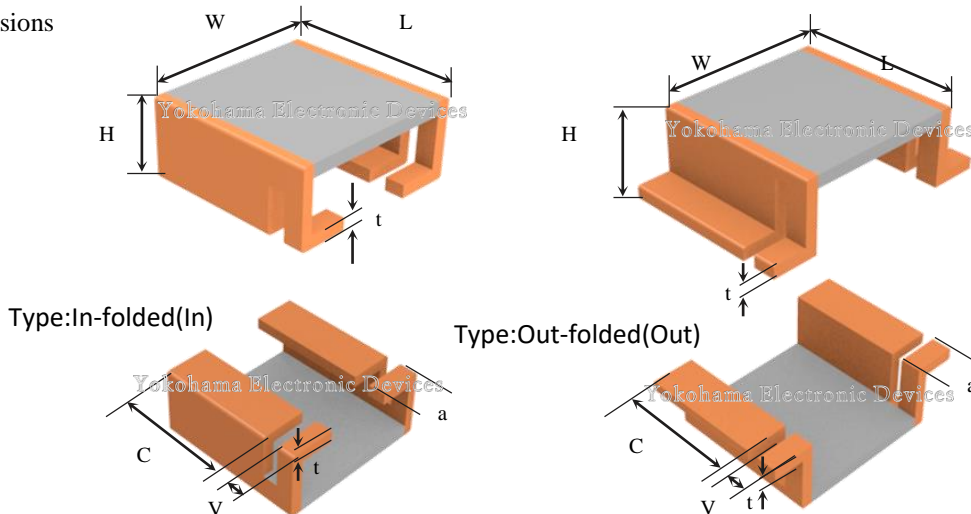
特徴 / Features

- 定格電力 5W
- 抵抗値許容差 J(±5%), G(±2%), 及びF(±1%)
- 抵抗値温度係数 ±70ppm/°C, ±40ppm/°C
- 最小抵抗値 0.0003Ω
- 低インダクタンス
- RoHS適合品
- 仕様外の抵抗値許容差もご相談ください。
- Rated Wattage 5W
- Resistance Tolerance, J(±5%), G(±2%), 及びF(±1%)
- TCR ±70ppm/°C, ±40ppm/°C
- Resistance Value down to 0.0003Ω
- Low Inductance
- RoHS Compliance
- Special tight tolerance are available on request.

品番構成 / Ordering Code

M	B	B	M	R	0	0	1	J	I	X	X	X
品目記号 Product Code	特性 Type	抵抗値 Nominal Resistance	抵抗値許容差 R-Tolerance	電極形状 Terminal Shape	端子メッキ Terminal Plating	性能グレード Performance						
MBB 面実装型 シャント抵抗	M: Manganin K: Karma F: FeCrAl	0.001Ω→R001 0.0005Ω→0M50	F= ±1% G= ±2% J= ±5%	I = 内曲げ I = In-folded O = 外曲げ O = Out-folded	X = 錫 X = Sn	XX = Normal						

寸法 / Dimensions



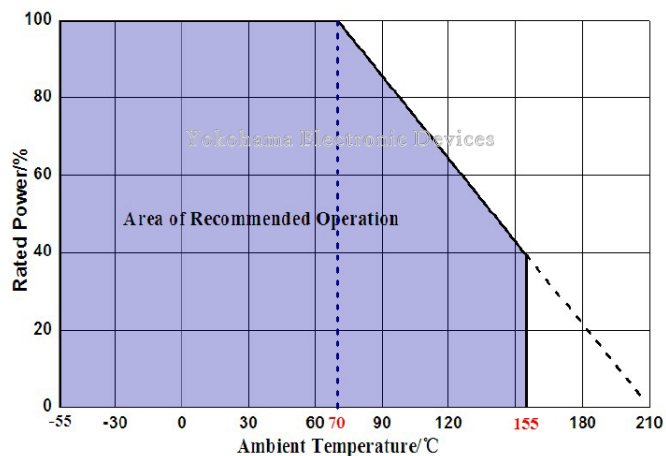
型式 Type	定格電力 Power	抵抗値 Resistance	抵抗温度係数 T.C.R	金属 Material	電極形状 Type	L	W	H	C	V	a	T
MBB M 0.5	5W	0.5mΩ	±70ppm/°C	Manganin	In	6.6±0.3	6.9±0.3	3.0±0.5	4.8±0.4	0.9	2.5±0.2	0.67±0.1
MBB M 1	5W	1.0mΩ	±70ppm/°C	Manganin	In	6.6±0.3	6.9±0.3	3.0±0.5	4.8±0.4	0.9	2.5±0.2	0.33±0.1
MBB K 2	5W	2.0mΩ	±40ppm/°C	Karma	In	6.6±0.3	6.9±0.3	3.0±0.5	4.8±0.4	0.9	2.5±0.2	0.47±0.1
MBB K 3	5W	3.0mΩ	±40ppm/°C	Karma	In	6.6±0.3	6.9±0.3	3.0±0.5	4.8±0.4	0.9	2.5±0.2	0.34±0.1
MBB F 5	4W	5.0mΩ	±40ppm/°C	FeCrAl	In	6.6±0.3	6.9±0.3	3.0±0.5	4.8±0.4	0.9	2.5±0.2	0.38±0.1
MBB M 0.3	5W	0.3mΩ	±70ppm/°C	Manganin	Out	6.6±0.3	6.9±0.3	3.0±0.5	4.8±0.4	0.9	2.5±0.2	1.06±0.1
MBB M 0.5	5W	0.5mΩ	±70ppm/°C	Manganin	Out	6.6±0.3	6.9±0.3	3.0±0.5	4.8±0.4	0.9	2.5±0.2	0.67±0.1
MBB M 1	5W	1.0mΩ	±70ppm/°C	Manganin	Out	6.6±0.3	6.9±0.3	3.0±0.5	4.8±0.4	0.9	2.5±0.2	0.33±0.1
MBB K 2	5W	2.0mΩ	±40ppm/°C	Karma	Out	6.6±0.3	6.9±0.3	3.0±0.5	4.8±0.4	0.9	2.5±0.2	0.5±0.1
MBB K 3	5W	3.0mΩ	±40ppm/°C	Karma	Out	6.6±0.3	6.9±0.3	3.0±0.5	4.8±0.4	0.9	2.5±0.2	0.34±0.1
MBB F 5	4W	5.0mΩ	±40ppm/°C	FeCrAl	Out	6.6±0.3	6.9±0.3	3.0±0.5	4.8±0.4	0.9	2.5±0.2	0.38±0.1

MBB series / Surface Mount Shunt Resistor

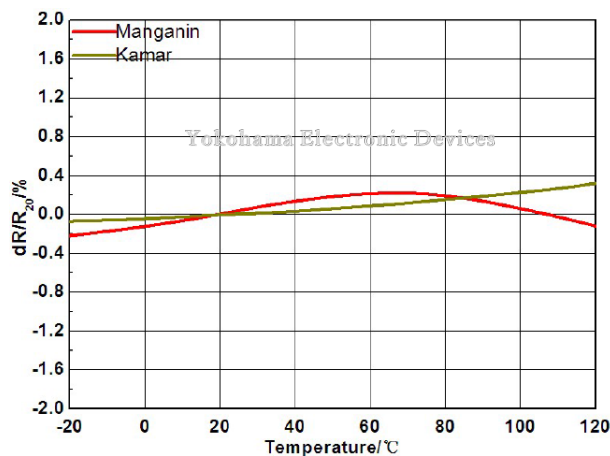
性能 / Performance

試験項目 Parameter	試験条件 Procedure	試験方法 Test Method	判定条件 Requirements
Temperature Cycling	1000 Cycles(-55°C to +125°C) Measurement at 24 ± 2 hours after test conclusion	JESD22 Method JA-104	±0.5%
High Temperature Exposure	1000hrs.@T=125°C.Unpowered. Measurement at 24 ± 2 hours after test conclusion	MIL-STD-202 Method 108	±0.5%
Moisture Resistance	t=24hrs/cycle.Note:Steps 7a & 7b not required. Unpowered. Measurement at 24 ± 2 hours after test conclusion	MIL-STD-202 Method 106	±0.5%
Biased Humidity	1000hrs 85°C/85%RH. Note:Specified conditions:10% of operating power. Measurement at 24 ± 2 hours after test conclusion	MIL-STD-202 Method 103	±0.5%
Operational Life	Condition D Steady State TA=125°Cat rated power. Measurement at 24 ± 2 hours after test conclusion	MIL-STD-202 Method 108	±0.5%
Solderability	245°C ± 5°C, 5s+0.5s/-0s	J-STD-002C	95% Coverage Minimum
Vibration	5g's for 20min,12cycles each of 3 orientations. Note:Use8"X5"PCB.031"thick7secure points on one long side opposite sides. Parts mounted within 2" from any secure point. Test from10-2000Hz. Measurementat24 ± 2hoursaftertestconclusion	MIL-STD-202 Method 204	±0.5%
Resistance to Soldering Heat	260°C ± 5°C, 10s ± 1s Measurement at 24 ± 2 hours after test conclusion	MIL-STD-202 Method 210	±0.5%
Short Time Overload	5 × Rated power for 5 s Measurement at 24 ± 2 hours after test conclusion	MIL-STD-202 Method 301	±0.5%
Thermal Shock	-55°C/ + 125°C,300 Cycles,Maximum transfer time 20s, Dwell time 15min。	MIL-STD-202 Method 107	±1%

Derating Curve



TCR Derating



MBB series / Surface Mount Shunt Resistor

性能 / Performance

Type	A /mm	B /mm	W /mm	E /mm	F /mm	P0 /mm	P1 /mm	P2 /mm	D0 /mm	T /mm	Quantity(EA) /pieces
In	7.5	8	16	1.75	7.35	6	12	12	1.5	3.8	3000
Out	7.3	12.1	24	1.75	12.2	6	12	12	1.5	3.5	1000

