TOP -QUALITY ELECTRIC CO., LTD.

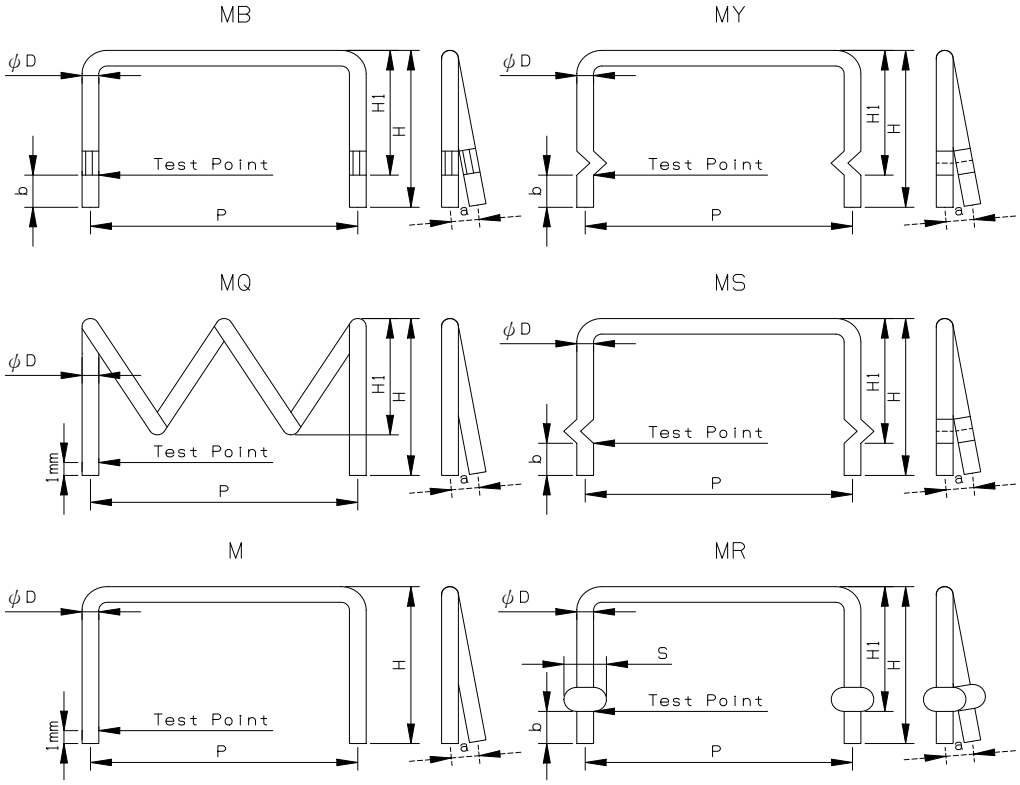
MR

custom milliohm resistor

features

- The super low resistance (3mΩ ~) is suitable for high power current detection
- Pitches and heights adjustable according to mounting conditions
- All custom-made products
- Easy soldering
- Products with lead-free terminations meet EU RoHS requirements. EU RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass

dimensions and construction



Size Code	Dimensions inches (mm)		
	a	b	ød
MR04B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.016 (0.4)
MR06B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.024 (0.6)
MR07B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.028 (0.7)
MR08B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.031 (0.8)
MR09B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.035 (0.9)
MR10B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.039 (1.0)
MR11B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.043 (1.1)
MR12B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.047 (1.2)
MR13B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.051 (1.3)
MR14B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.055 (1.4)
MR15B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.059 (1.5)
MR16B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.063 (1.6)
MR18B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.071 (1.8)
MR20B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.079 (2.0)
MR23B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.091 (2.3)
MR26B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.102 (2.6)
MR29B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.114 (2.9)
MR40B	0.039 (1 Max.)	.118±.019 (3.0±0.5)	0.157 (4.0)

* Please consult with us about dimensions “P” and “H”

ordering information

MR	09	D	MB	10	0R05	J
Type	Symbol	Termination Material	Style	Insertion Pitch	Nominal Resistance	Resistance Tolerance
	04~40	D: SnAgCu N: No surface treatment	MB MY MQ MS M MR	Insertion Pitch	4 digits	F：±1% G：±2% H: ±3% J: ±5%

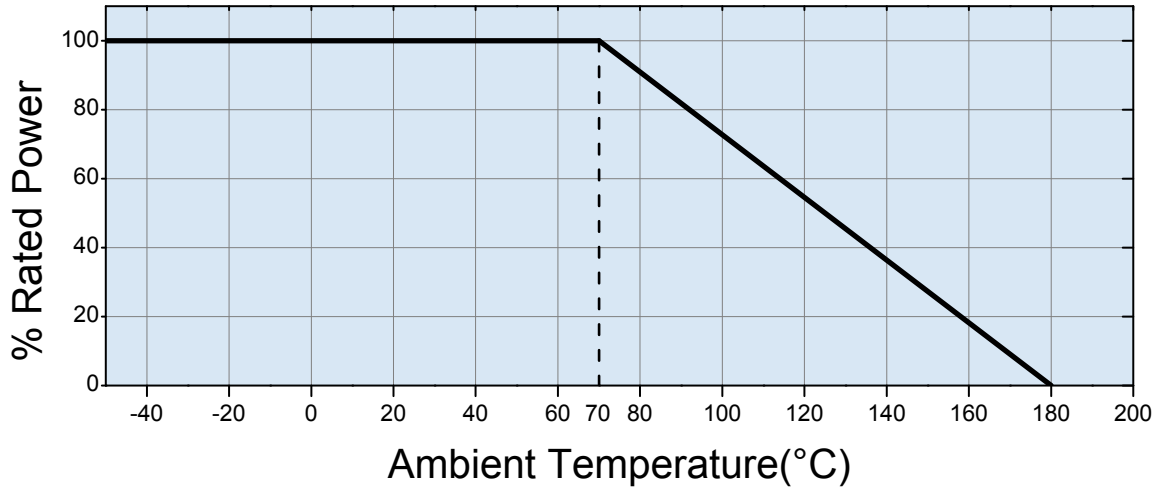
applications and ratings

Part Designation	Symbol	Maximum Current Rating (A)	Resistance Range	Resistance Tolerance	T.C.R. (ppm/°C) Max.	Rated Ambient Temperature	Operating Temperature Range
MR04B	4	2	100mΩ-200mΩ	F : ±1% G : ±2% H: ±3% J: ±5%	±100	+70°C	-40°C to +180°C
MR06B	6	3	50mΩ - 100mΩ				
MR07B	7	4	30mΩ - 70mΩ				
MR08B	8	4.5	20mΩ - 50mΩ				
MR09B	9	5	20mΩ - 40mΩ				
MR10B	10	5.5	15mΩ - 30mΩ				
MR11B	11	6	15mΩ - 20mΩ				
MR12B	12	7	10mΩ - 20mΩ				
MR13B	13	7.5	10mΩ - 20mΩ				
MR14B	14	8	10mΩ - 20mΩ				
MR15B	15	9	10mΩ - 20mΩ				
MR16B	16	9.5	10mΩ - 15mΩ				
MR18B	18	11	5mΩ - 10mΩ				
MR20B	20	12	5mΩ - 10mΩ				
MR23B	23	14	3mΩ - 10mΩ				
MR26B	26	18	3mΩ - 5mΩ				
MR29B	29	21	3mΩ - 5mΩ				
MR40B	40	50	1mΩ - 4mΩ				

* Other resistances are also available on request.

environmental applications

Derating Curve



Performance Characteristics

Parameter	Requirement ∆ R ±%		Test Method
	Limit	Typical	
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	Room temp. +100°C UP
Resistance to Soldering Heat	±2.0%	±1.6%	350°C ± 10°C, 3 seconds
Moisture Resistance	±3.0%	±2.7%	Power rating x 1/10, 40°C, 90% - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±5.0%	±3.0%	Rated voltage, 70°C, 1000 hours 1.5 hr ON, 0.5 hr OFF cycle