



PRECISION METAL FILM RESISTOR

PERFORMANCE CHARACTERISTICS:

TYPE		MR-12	MR-25	MR-50	MR-100	MR-200
Power Rating – at 70°C at 125°C		0.125W	0.25W	0.50W	1W	2W
		0.062W	0.125W	0.25W	0.5W	0.75W
Max. Rated Continuous Working Voltage		200V	250V	350V	500V	500V
Max. Ambient Temperature		150°C	150°C	150°C	150°C	150°C
Dielectric Withstanding Voltage (Max. overload Voltage V block 1 min.)	ΔR*	0.50%	0.10%	0.25%	0.25%	0.25%
Insulation Resistance – Dry (DC 500V V block 1min.) Wet		10,000MΩ	10,000MΩ	10,000MΩ	10,000MΩ	10,000MΩ
		100MΩ	100MΩ	100MΩ	100MΩ	100MΩ
Temperature Cycling (-30°C~+85°C 5 cycles)	ΔR*	0.20%	0.20%	0.20%	0.20%	0.20%
Short-time Overload (2.5 times of rated voltage 5 sec.)	ΔR*	0.25%	0.25%	0.25%	0.25%	0.25%
Moisture Resistance (10 cycles per MIL-STD-202 method 106)	ΔR*	0.50%	0.50%	0.50%	0.50%	0.50%
Load Life – 1,000 hrs (70°C on-off cycles) 10,000 hrs	ΔR*	1.0%	1.0%	1.0%	1.0%	1.0%
	ΔR*	4.0%	4.0%	4.0%	4.0%	4.0%
Terminal Strength (Pull & twist)	ΔR*	0.20%	0.10%	0.10%	0.10%	0.10%
Resistance to Soldering Heat (350°C 3 sec.)	ΔR*	0.5%	0.25%	0.25%	0.25%	0.25%
Shock, Medium Impact	ΔR*	0.25%	0.25%	0.25%	0.25%	0.25%
Vibration, High Frequency (MIL-STD-202 method 204)	ΔR*	0.25%	0.25%	0.25%	0.25%	0.25%
Low Temperature Operation	ΔR*	0.25%	0.15%	0.15%	0.15%	0.15%
High Temperature Operation	ΔR*	1.0%	1.0%	1.0%	1.0%	1.0%
Solderability (MIL-STD-202 method 208) (% AREA)	%	95%	95%	95%	95%	95%
Shelf Life per year	ΔR*	0.20%	0.10%	0.10%	0.10%	0.10%

* Maximum percent change in resistance +0.05Ω

POWER DERATING CURVE

For resistors operated in ambient temperatures above 70°C, power rating must be derated in accordance with the curve below.

