

Features:

- Metal element resistors
- Excellent load life stability
- Tinned copper leads
- Low temperature coefficient
- Molded bodies
- TMR – Kelvin Bridge Test
- MRS high stability version
- Cut and formed product is available on selected sizes - contact factory for details
- Values of 0.150 ohms and below are non-magnetic and non-inductive
- RoHS compliant

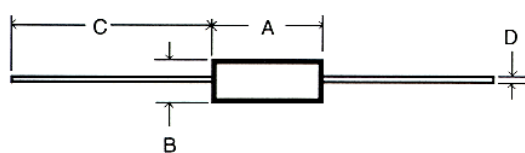


Electrical Specifications

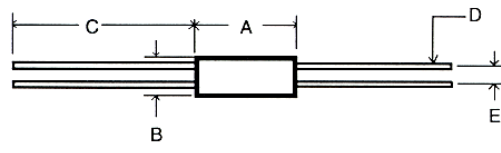
Type / Code	Power Rating (Watts) @ 70°C	Short Time Overload	Dielectric Strength	Resistance Temperature Coefficient	Ohmic Range (Ω) and Tolerance
					1%, 5%
MR1	1W	5 sec. at 5x rated power	500 VAC	±50 to ±400 ppm/°C ⁽¹⁾	0.01 - 0.1
MR3	3W				0.005 - 0.2
MR5	5W				0.005 - 0.3
MR10	10W				0.01 - 0.5
TMR3	3W			±40 ppm/°C	0.005 - 0.2
TMR5	5W				0.005 - 0.3

(1) TCR is value dependent. Contact factory for specific data.

Mechanical Specifications



MR



TMR

Type / Code	A Body Length	B Body Diameter	C Lead Length (Bulk) ⁽¹⁾	D Lead Diameter	E Lead Spacing (Ref.)	Unit
MR1	0.385 ± 0.015 9.78 ± 0.38	0.135 ± 0.015 3.43 ± 0.38	1.375 ± 0.125 34.93 ± 3.18	0.032 ± 0.002 0.81 ± 0.05	-	inches mm
MR3	0.560 ± 0.015 14.22 ± 0.38	0.205 ± 0.015 5.21 ± 0.38	1.375 ± 0.125 34.93 ± 3.18	0.032 ± 0.002 0.81 ± 0.05		inches mm
MR5	0.925 ± 0.015 23.50 ± 0.38	0.330 ± 0.015 8.38 ± 0.38	1.375 ± 0.125 34.93 ± 3.18	0.036 ± 0.002 0.91 ± 0.05		inches mm
MR10	1.925 ± 0.015 48.90 ± 0.38	0.475 ± 0.015 12.07 ± 0.38	1.375 ± 0.125 34.93 ± 3.18	0.036 ± 0.002 0.91 ± 0.05		inches mm
TMR3	0.625 ± 0.015 15.88 ± 0.38	0.205 ± 0.015 5.21 ± 0.38	1.375 ± 0.125 34.93 ± 3.18	0.032 ± 0.002 0.81 ± 0.05	0.125 3.18	inches mm
TMR5	0.940 ± 0.015 23.88 ± 0.38	0.330 ± 0.015 8.38 ± 0.38	1.375 ± 0.125 34.93 ± 3.18	0.036 ± 0.002 0.91 ± 0.05	0.200 5.08	inches mm

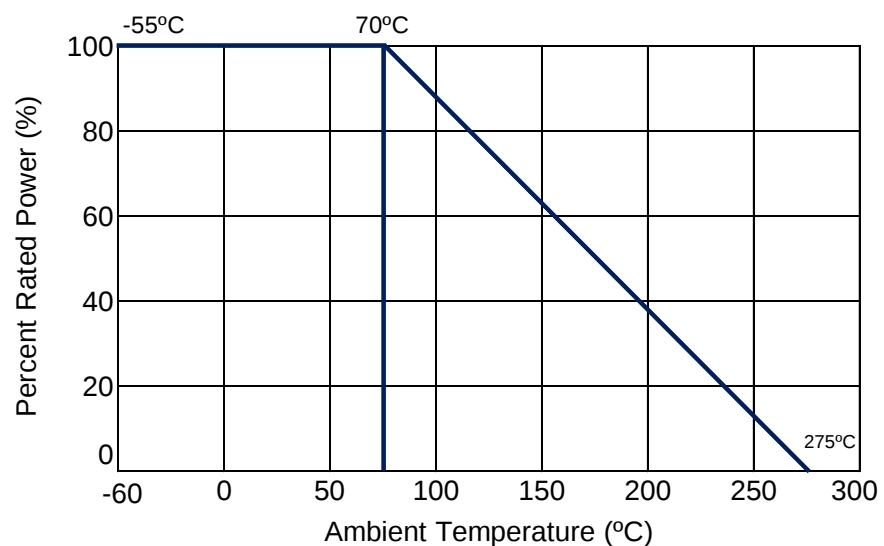
(1) See Packaging Specification for lead length dimension for tape and reel packaged product

Performance Characteristics

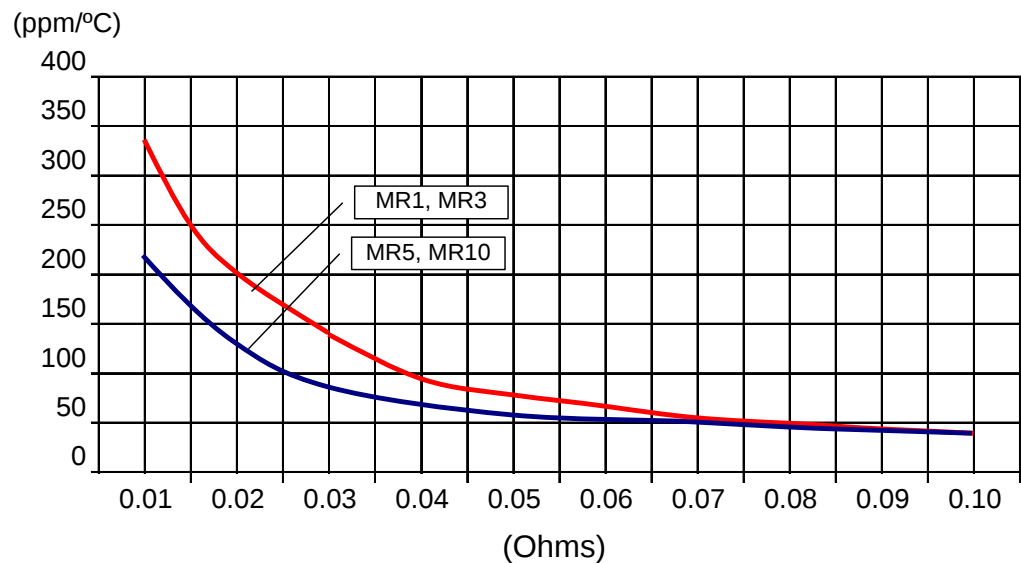
Test	Test Results
Moisture Resistance	±5%
Thermal Shock	±2%
Load Life @ 70°C - 1,000 hrs.	±5%
Resistance to Soldering Heat	±2%
Short Time Overload	±2%
Dielectric Withstanding Voltage	±2%

Operating Temperature Range: -55°C to +275°C

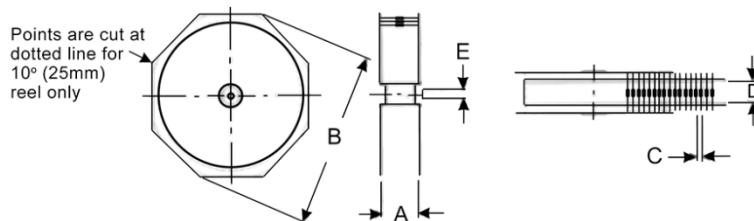
Power Derating Curve:



TCR x Resistance:



Packaging Specifications



Series	Code	A max ⁽¹⁾	B max	C	D ⁽²⁾	Tape	Unit
MR	1	3.311 84.10	13.504 343.00	0.197 ± 0.020 5.00 ± 0.50	2.063 ± 0.079 52.40 ± 2.00	0.250 6.35	inches mm
	3	3.484 88.50	13.504 343.00	0.394 ± 0.020 10.00 ± 0.50	2.063 ± 0.079 52.40 ± 2.00	0.250 6.35	inches mm
	5	3.850 97.80	13.504 343.00	0.394 ± 0.020 10.00 ± 0.50	2.875 ± 0.079 73.03 ± 2.00	0.250 6.35	inches mm
	10	4.764 121.00	13.504 343.00	0.394 ± 0.020 10.00 ± 0.50	4.310 ± 0.079 109.47 ± 2.00	0.250 6.35	inches mm
TMR	3	6.299 160.00	13.504 343.00	0.394 ± 0.020 10.00 ± 0.50	2.063 ± 0.079 52.40 ± 2.00	0.250 6.35	inches mm
	5	6.614 168.00	13.504 343.00	0.394 ± 0.020 10.00 ± 0.50	2.063 ± 0.079 52.40 ± 2.00	0.250 6.35	inches mm

Dimension "E": This is a non-critical dimension that does not have a tolerance in the standard.

Range of diameters is from 0.547 inches (13.90 mm) to 1.500 inches (38.10 mm).

- (1) Reference value only. The "A" dimension shall be governed by the overall length of the taped component. The distance between flanges shall be 0.059 inches (1.50 mm) to 0.315 (8.00 mm) greater than the overall component.
- (2) The given dimension "D" expresses the standard width spacing. A 26mm narrow spacing is available as option "N" packaging code.

How to Order

1		2		3		4		5		6		7		8		9	
M		R		3		F		T		R		1		0		0	
Product Series		Size	Power	Tolerance		Packaging				Resistance Value							
MR	2 Leads	1	1W	Code	Tol	Code	Description	Size	Quantity	Four characters with the multiplier used as the decimal holder. "L" used as multiplier of 10 ⁻³ for any value under 0.1 ohm.							
TMR	4 Leads	3	3W	F	1%	T	Tape and Reel	MR1	2,000								
MRS	High Stability	5	5W	J	5%			MR3	750								
		10	10W					MR5	500								
								MR10	250								
						B	Bulk	MR1, MR3, MR5	1,000	0.005 ohm = 5L00 0.01 ohm = 10L0 0.2 ohm = R200							
								MR10	500								
								TMR 3, 5	100								