## MR/MRS/TMR Series

Features: - Metal element resistors

- Excellent load life stability
- Inherently non-inductive

- Tinned copper leads
- Low temperature coefficient
- RoHS compliant
- Molded bodies
- TMR - Kelvin Bridge Test
- MRS high stability version
- Cut and formed product is available on selected sizes contact factory for details


## Electrical Specifications

| Type / Code | Power Rating (Watts) <br> (1) $70^{\circ} \mathrm{C}$ | Short Time Overload | Dielectric Strength | Resistance Temperature Coefficient | Ohmic Range $(\Omega)$ and Tolerance $1 \% 5 \%$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MR1 | 1W | 5 sec . at 5 x rated power | 500 VAC | $\pm 50$ to $\pm 400 \mathrm{ppm} /{ }^{\circ} \mathrm{C}(1)$ | 0.01-0.1 |
| MR3 | 3W | 5 sec . at 5 x rated power | 500 VAC | $\pm 50$ to $\pm 400 \mathrm{ppm} /{ }^{\circ} \mathrm{C}$ (1) | 0.005-0.2 |
| MR5 | 5W | 5 sec . at 5 x rated power | 500 VAC | $\pm 50$ to $\pm 400 \mathrm{ppm} /{ }^{\circ} \mathrm{C}$ (1) | 0.005-0.3 |
| MR10 | 10W | 5 sec . at 5 x rated power | 500 VAC | $\pm 50$ to $\pm 400 \mathrm{ppm} /{ }^{\circ} \mathrm{C}$ (1) | 0.01-0.5 |
| TMR3 | 3W | 5 sec . at 5 x rated power | 500 VAC | $\pm 40 \mathrm{ppm} /{ }^{\circ} \mathrm{C}$ | 0.005-0.2 |
| TMR5 | 5 W | 5 sec . at 5 x rated power | 500 VAC | $\pm 40 \mathrm{ppm} /{ }^{\circ} \mathrm{C}$ | 0.005-0.3 |

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


MR


TMR

| Mechanical Specifications |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type / Code | $\begin{array}{c}\text { A } \\ \text { Body Length }\end{array}$ | $\begin{array}{c}\text { B } \\ \text { Body Diameter }\end{array}$ | $\begin{array}{c}C \\ \text { Lead Length (Bulk)(1) }\end{array}$ | $\begin{array}{c}\mathrm{D} \\ \text { Lead Diameter }\end{array}$ | $\begin{array}{c}\text { Lead Spacing } \\ \text { (Ref.) }\end{array}$ | Unit |  |$\}$

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

| Performance Characteristics |  |
| :---: | :---: |
| Test | Test Results |
| Moisture Resistance | $\pm 5 \%$ |
| Thermal Shock | $\pm 2 \%$ |
| Load Life @ $70^{\circ} \mathrm{C}-1,000$ hrs. | $\pm 5 \%$ |
| Resistance to Soldering Heat | $\pm 2 \%$ |
| Short Time Overload | $\pm 2 \%$ |
| Dielectric Withstanding Voltage | $\pm 2 \%$ |

Operating Temperature Range: $-55^{\circ} \mathrm{C}$ to $+275^{\circ} \mathrm{C}$

Power Derating Curve:


TCR x Resistance:


## How to Order



Legacy Part Number (before January 3, 2011):

| SEI Type |  | Code | Nominal Resistance | Tolerance | Packaging |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MR |  | 3 | 0.1 | 1\% | R |  |  |  |
| Type | Description | Code |  | Tolerance | Type | Pkg Qty | Description | Code |
| MR | 2 Leads | 1 |  | 1\% | MR1 | 2,000 | Tape and Reel | R |
| TMR | 4 Leads | 3 |  | 5\% | MR3 | 750 |  |  |
| MRS | High Stability | 5 |  |  | MR5 | 500 |  |  |
|  |  | 10 |  |  | MR10 | 250 |  |  |
|  |  |  |  |  | MR1, MR3, MR5 | 1,000 | Bulk | B |
|  |  |  |  |  | MR10 | 500 |  |  |
|  |  |  |  |  | TMR3, TMR5 | 100 |  |  |

