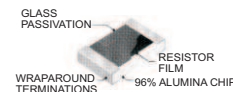


# State of the Art, Inc.

## Thick Film Chip Resistor

### M55342/03 RM1005



## PERFORMANCE

Resistance Range  $1\Omega - 22M\Omega$   
 Tolerances 1%, 2%, 5%, 10%  
 Maximum Power 200 mW  
 Maximum Voltage 75 Volts

### TESTS

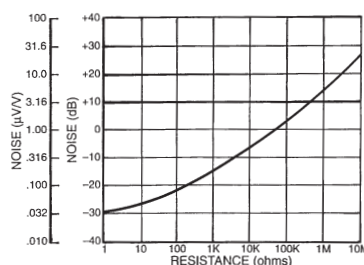
TCR (-55 to +125 °C) in ppm/°C  
 Thermal Shock  
 Low Temperature Operation  
 Short-time Overload  
 Resistance to Soldering Heat  
 Moisture Resistance  
 Life, 2,000 Hours  
 High Temperature Exposure

### CHARACTERISTICS\*

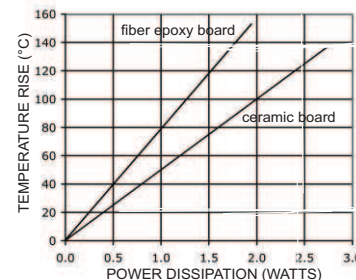
|                                | K      | M      |
|--------------------------------|--------|--------|
| TCR (-55 to +125 °C) in ppm/°C | ±100   | ±300   |
| Thermal Shock                  | ±0.5%  | ±0.5%  |
| Low Temperature Operation      | ±0.25% | ±0.5%  |
| Short-time Overload            | ±0.25% | ±0.5%  |
| Resistance to Soldering Heat   | ±0.25% | ±0.25% |
| Moisture Resistance            | ±0.5%  | ±0.5%  |
| Life, 2,000 Hours              | ±0.5%  | ±2.0%  |
| High Temperature Exposure      | ±0.5%  | ±1.0%  |

\*Maximum allowable change per MIL-PRF-55342, typical change is 10% of these values.

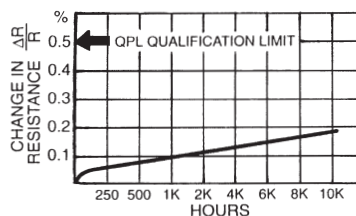
### CURRENT NOISE



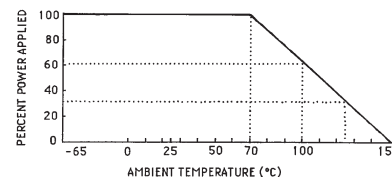
### POWER DISSIPATION



### LIFE TEST



### POWER DERATING



## PART NUMBERING

### M55342 K 03 B 100D S - TR

PACKAGING CODE: TR = Tape & Reel W= Waffle Pack

PRODUCT LEVEL DESIGNATOR: M: 1% per 1000 hrs. R: 0.01% P: 0.1% S: 0.001% T: Space Level C: Non - ER

RESISTANCE AND TOLERANCE CODE:

Three significant digits, with a letter indicating the decimal location, the tolerance, and the value range.

D: 1%  $\Omega$  G: 2%  $\Omega$  J: 5%  $\Omega$  M: 10%  $\Omega$   
 E: 1% K  $\Omega$  H: 2% K  $\Omega$  K: 5% K  $\Omega$  N: 10% K  $\Omega$   
 F: 1% M  $\Omega$  T: 2% M  $\Omega$  L: 5% M  $\Omega$  P: 10% M  $\Omega$

TERMINATION MATERIALS:

B: Solderable wraparound C: Epoxy bondable palladium/silver wraparound U: Epoxy bondable platinum/gold wraparound  
 W: Gold wire bondable G: Gold wraparound

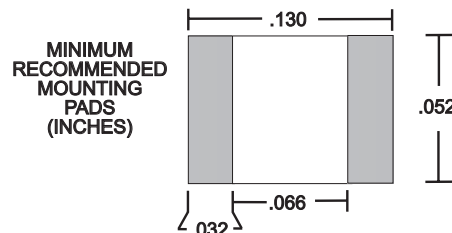
SIZE CODE: /03 = RM1005

TEMPERATURE CHARACTERISTIC: K: ± 100ppm M: ± 300ppm

PERFORMANCE SPECIFICATION MIL-PRF-55342

## MECHANICAL

|                | INCHES             | MILLIMETERS        |
|----------------|--------------------|--------------------|
| Length         | .100 (.098 - .112) | 2.54 (2.49 - 2.84) |
| Width          | .048 (.045 - .055) | 1.22 (1.14 - 1.40) |
| Thickness      | .018 (.015 - .033) | 0.46 (0.38 - 0.84) |
| Top Term       | .014 (.010 - .020) | 0.36 (0.25 - 0.51) |
| Bottom Term    | .014 (.010 - .020) | 0.36 (0.25 - 0.51) |
| Gap            | .072 (.068 - .076) | 1.83 (1.73 - 1.93) |
| Approx. Weight | .0054 grams        |                    |



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[www.resistor.com](http://www.resistor.com)

04/09/08

\*Specifications subject to change without notice.\*