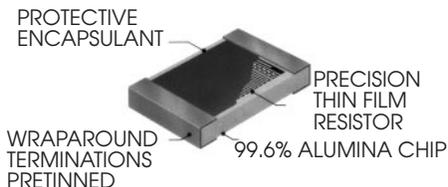


# State of the Art, Inc.

## M55342/09 Thin Film Chip Resistor

### 2512 Size, Surface Mount, Solderable



### FEATURES

- Tolerances to  $\pm 0.1\%$
- Operating temperature range :  $-55^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- Pretinned (Sn60) nickel barrier terminations
- TCR's to  $\pm 25$  ppm
- Suitable for solder reflow, vapor phase, or wave solder attachment

### PERFORMANCE CHARACTERISTICS

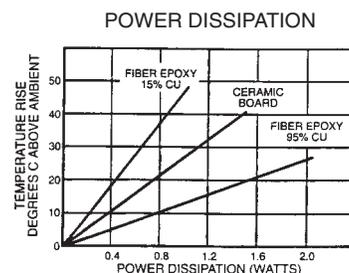
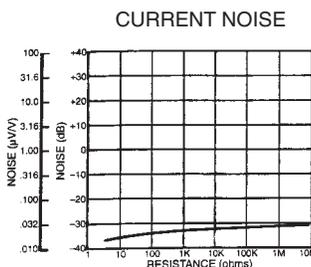
Resistance Range 5.6 $\Omega$  - 1M $\Omega$   
 Tolerances 0.1%, 1%, 2%, 5%, 10%  
 Maximum Power 1000 mW  
 Maximum Voltage 200 Volts

#### ENVIRONMENTAL PERFORMANCE (3)

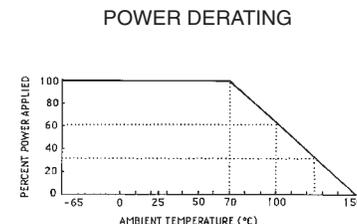
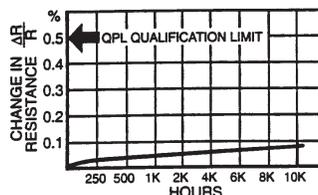
TCR ( $-55$  to  $+125^{\circ}\text{C}$  in ppm/ $^{\circ}\text{C}$ )  
 Thermal Shock < 25 ppm  
 Low Temperature Operation  $\pm 0.02\%$   
 Short-time Overload  $\pm 0.02\%$   
 Resistance to Bonding Exposure  $\pm 0.02\%$   
 Moisture Resistance  $\pm 0.02\%$   
 High Temperature Exposure  $\pm 0.03\%$   
 Life  $\pm 0.03\%$   
 See Chart

- (1) Resistance range for 0.1% tolerance is 100 ohms to 1 M ohm.
- (2) Maximum Power for E and H TCR is 500 mW.
- (3) Typical Resistance change, the maximum is the same as MIL-PRF-55342. Test methods are per MIL-PRF-55342.

Solderability: Solder coating compatible with Sn60, 62 or 63 solders, provides good wetting with all types of solder attachment. All product is tested IAW Mil-Std-202, method 208, including 8 hour steam aging.

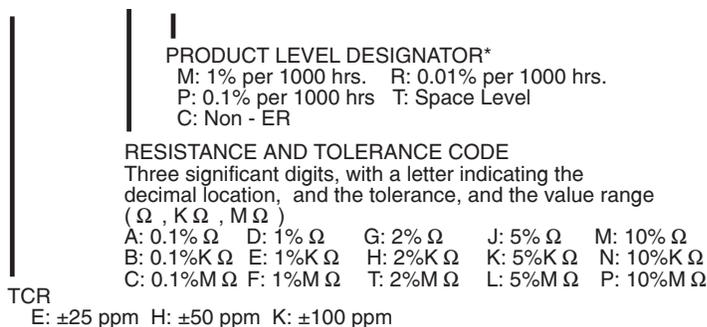


#### TYPICAL LIFE TEST PERFORMANCE



### PART NUMBERING

**M55342 H 09B 100D R**



### MECHANICAL

	INCHES	MM
Length	.259 (+.009/- .009)	6.58 (+.23/- .23)
Width	.124 ( $\pm 0.05$ )	3.15 ( $\pm .13$ )
Thickness	.015 - .033	.38 - .84
Top Term.	.015 - .025	.38 - .64
Bottom Term.	.015 - .025	.38 - .64

Approx. Weight .0513 grams

### PACKAGING

Two packaging options are available:

- Waffle Pack - (45 per Tray Max.)
- Tape & Reel - (1800 per 8" Inch Reel Max.)

### \* PRODUCT LEVELS

All product levels are based on the same design as our "R" level failure rate Established Reliability part. Level C is a Non-Established Reliability part requiring no group A, B or C testing. Established Reliability (failure rates based on life testing) product levels M, P, and R are subject to group A, B and C testing per MIL-PRF-55342. Space product level T requires group A and B tests including 100% power conditioning.

### OPTIONS

Termination type wraparound style (pretinned with a Ni barrier), and type W (wire bondable) are available. Also available in thick film MIL-PRF-55342 characteristic K & M. SOTA offers a full line of component parts in the 2512 size including Standard Grade, High-Reliability (customer specified testing), and zero-ohm jumpers. Custom part marking is also available.

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10/01/97

Where Quality Isn't a Goal...It's Our Tradition