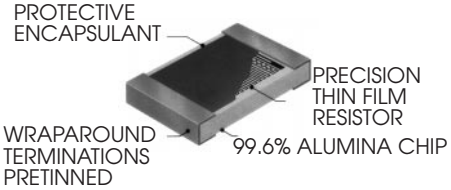
State of the Art, Inc.

M55342/06 Thin Film Chip Resistor

0705 Size, Surface Mount, Solderable



FEATURES

- Tolerances to ± 0.1%
- Operating temperature range : -55° C to +150° C
- Pretinned (Sn60) nickel barrier terminations
- TCR's to ± 25 ppm
- Suitable for solder reflow, vapor phase, or wave solder attachment

PERFORMANCE CHARACTERISTICS

Resistance Range	5.6Ω - 1MΩ
Tolerances	0.1%,1%, 2%, 5%,10%
Maximum Power	100 mW
Maximum Voltage	50 Volts

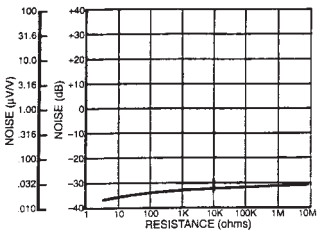
ENVIRONMENTAL PERFORMANCE (3)

TCR (-55 to +125 °C in ppm/°C)	
Thermal Shock	< 25 ppm
Low Temperature Operation	±0.02%
Short-time Overload	±0.02%
Resistance to Bonding Exposure	±0.02%
Moisture Resistance	±0.02%
High Temperature Exposure	±0.03%
Life	±0.03%
	See Chart

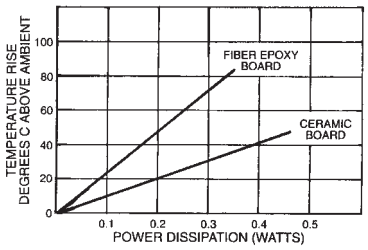
(1) Resistance range for 0.1% tolerance is 100 ohms to 1 M ohm.
(2) Maximum Power for E and H TCR is 50 mW.
(3) Typical Resistance change, the maximum is the same as MIL-PRF-55342. Test methods are per MIL-PRF-55342.

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.

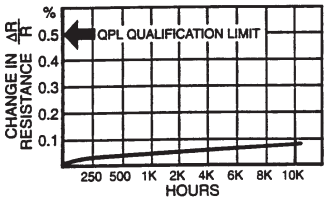
CURRENT NOISE



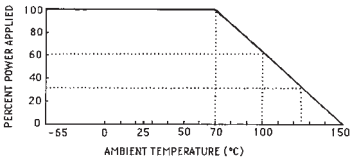
POWER DISSIPATION



TYPICAL LIFE TEST PERFORMANCE



POWER DERATING



PART NUMBERING

M55342 H 06B 100D R

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

RESISTANCE AND TOLERANCE CODE
Three significant digits, with a letter indicating the decimal location, and the tolerance, and the value range (Ω , K Ω , M Ω)

A: 0.1% Ω	D: 1% Ω	G: 2% Ω	J: 5% Ω	M: 10% Ω
B: 0.1%K Ω	E: 1%K Ω	H: 2%K Ω	K: 5%K Ω	N: 10%K Ω
C: 0.1%M Ω	F: 1%M Ω	T: 2%M Ω	L: 5%M Ω	P: 10%M Ω

TCR
E: ±25 ppm H: ±50 ppm K: ±100 ppm

MECHANICAL

	INCHES	MM
Length	.080 (+.006/-.006)	2.03 (+.15/-.15)
Width	.050 (±.005)	1.27 (±.13)
Thickness	.015 - .033	.38 - .84
Top Term.	.010 - .020	.25 - .51
Bottom Term.	.010 - .020	.25 - .51

Approx. Weight .0045 grams

PACKAGING

Two packaging options are available:

Waffle Pack - (170 per Tray Max.)
Tape & Reel - (5000 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 0705 size including Standard Grade, High-Reliability (customer specified testing), and zero-ohm jumpers. Custom part marking is also available.

STATE OF THE ART, INC. 2470 Fox Hill Road, State College, PA 16803-1797
Phone (814) 355-8004 Fax (814) 355-2714 **Toll Free 1-800-458-3401**

10/01/97

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