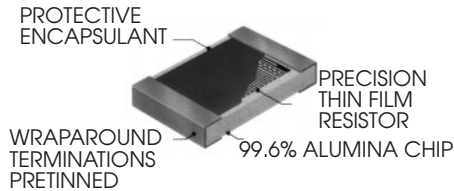




State of the Art, Inc.

M55342/06 Thin Film Chip Resistor

0705 Size, Surface Mount, Solderable



FEATURES

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

PERFORMANCE CHARACTERISTICS

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

ENVIRONMENTAL PERFORMANCE (3)

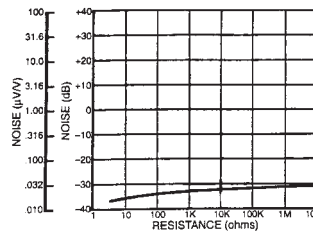
TCR (-55 to $+125^{\circ}\text{C}$ in ppm/ $^{\circ}\text{C}$)	< 25 ppm
Thermal Shock	$\pm 0.02\%$
Low Temperature Operation	$\pm 0.02\%$
Short-time Overload	$\pm 0.02\%$
Resistance to Bonding Exposure	$\pm 0.02\%$
Moisture Resistance	$\pm 0.02\%$
High Temperature Exposure	$\pm 0.03\%$
Life	$\pm 0.03\%$

See Chart

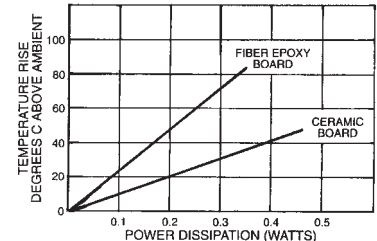
- (1) Resistance range for 0.1% tolerance is 100 ohms to 1 M ohm.
- (2) Maximum Power for E and H TCR is 50 mW.
- (3) Typical Resistance change, the maximum is the same as MIL-PRF-55342. Test methods are per MIL-PRF-55342.

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.

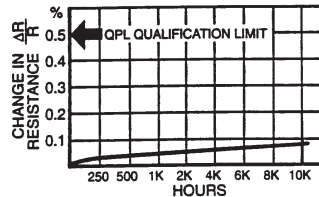
CURRENT NOISE



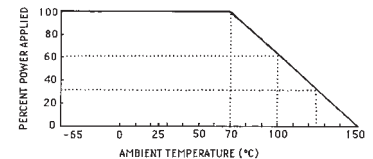
POWER DISSIPATION



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
		B: 0.1%K Ω	E: 1%K Ω
		TCR	
		E: ± 25 ppm H: ± 50 ppm K: ± 100 ppm	
		G: 2% Ω	
		J: 5% Ω	
		M: 10% Ω	
		N: 10%K Ω	
		L: 5%M Ω	
		P: 10%M Ω	

MECHANICAL

	INCHES	MM
Length	.080 (+.006/- .006)	2.03 (+.15/- .15)
Width	.050 ($\pm .005$)	1.27 ($\pm .13$)
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.

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10/01/97

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