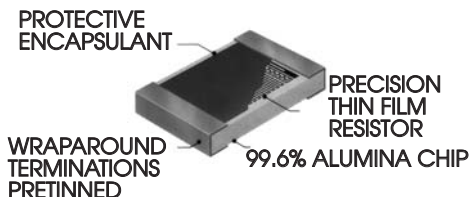


State of the Art, Inc.

M55342/11 Thin Film Chip Resistor

0402 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

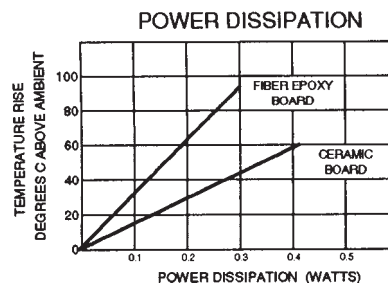
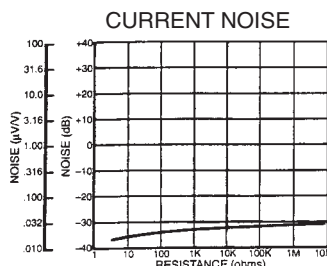
Resistance Range(1)	5.6 Ω - 100K Ω
Tolerances	0.1%, 1%, 2%, 5% 10%
Maximum Power	40mW
Maximum Voltage	25 Volts

ENVIRONMENTAL PERFORMANCE (2)

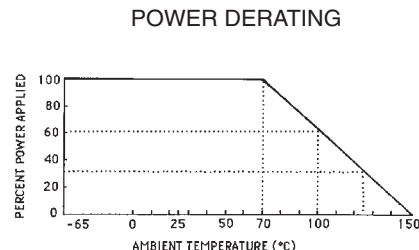
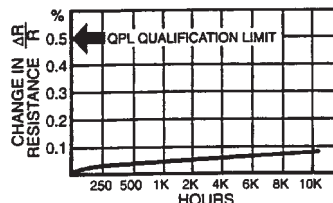
TCR (-55 to $+125^{\circ}\text{C}$ in ppm/ $^{\circ}\text{C}$)	< 25 ppm
Thermal Shock	$\pm 0.03\%$
Low Temperature Operation	$\pm 0.02\%$
Short-time Overload	$\pm 0.02\%$
Resistance to Bonding Exposure	$\pm 0.03\%$
Moisture Resistance	$\pm 0.05\%$
High Temperature Exposure	$\pm 0.05\%$
Life	See Chart

(1) 0.1% tolerance 100 Ω to 100K Ω .
 (2) 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 11B 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	.042 ($\pm .008$)	1.067 ($\pm .203$)
Width	.022 ($\pm .005$)	.559 ($\pm .127$)
Thickness	.010 - .033	.254 - .838
Top Term.	.010 ($\pm .005$)	.254 - ($\pm .127$)
Bottom Term.	.010 ($\pm .005$)	.254 - ($\pm .127$)

Approx. Weight .0011 grams

PACKAGING

Two packaging options are available:

Waffle Pack - (360 per Tray Max.)
 Tape & Reel - (5000 per 7" 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 0402 size including Standard Grade, High-Reliability (customer specified testing), and zero-ohm jumpers.

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

10/25/00

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