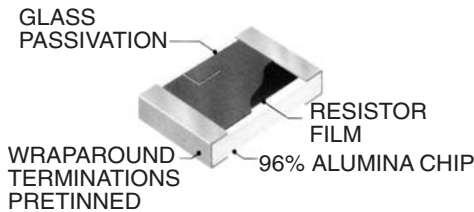




State of the Art, Inc.

M55342/12 Thick Film Chip Resistor

0603 Size, Surface Mount, Solderable



FEATURES

- Tolerances to $\pm 1\%$
- Operating temperature range : -55°C to $+150^{\circ}\text{C}$
- Pretinned (Sn60) nickel barrier terminations
- TCR's to ± 100 ppm
- "S" level qualified manufacturer
- Suitable for solder reflow, vapor phase, or wave solder attachment

PERFORMANCE CHARACTERISTICS

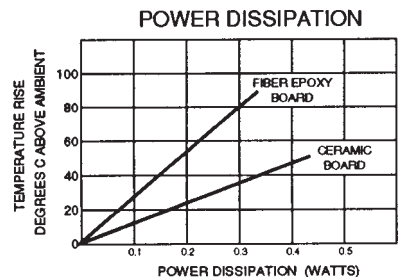
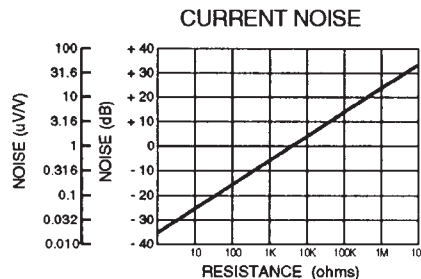
Resistance Range	5.6 Ω - 1M Ω
Tolerances	1%, 2%, 5% 10%
Maximum Power	70 mW
Maximum Voltage	50 Volts

ENVIRONMENTAL PERFORMANCE (1)

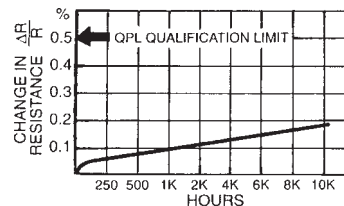
TCR (-55 to $+125^{\circ}\text{C}$ in ppm/ $^{\circ}\text{C}$)	< 100 ppm
Thermal Shock	$\pm 0.03\%$
Low Temperature Operation	$\pm 0.02\%$
Short-time Overload	$\pm 0.02\%$
Resistance to Bonding Exposure	$\pm 0.03\%$
Moisture Resistance	$\pm 0.05\%$
High Temperature Exposure	$\pm 0.05\%$
Life	See Chart

(1) Typical resistance change, the maximum is the same as MIL-PRF-55342. Test methods are per MIL-PRF-55342.

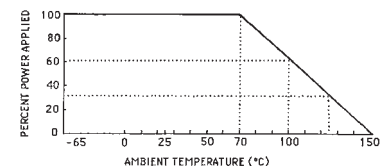
Solderability: Solder coating compatible with Sn60, 62 or 63 solders, provides good wetting with all types of solder attachment. All product is tested IAW Mil-Std-202, method 208, including 8 hour steam aging.



TYPICAL LIFE TEST PERFORMANCE



POWER DERATING



PART NUMBERING

M55342 K 12B 100D S

TCR	K: ± 100 ppm	M: ± 300 ppm	PRODUCT LEVEL DESIGNATOR*			
			M: 1% per 1000 hrs.	R: 0.01% per 1000 hrs.		
			P: 0.1% per 1000 hrs	S: 0.001% per 1000 hrs.		
			C: Non - ER	T: Space Level		
			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)			
			D: 1% Ω	G: 2% Ω	J: 5% Ω	M: 10% Ω
			E: 1%K Ω	H: 2%K Ω	K: 5%K Ω	N: 10%K Ω
			F: 1%M Ω	T: 2%M Ω	L: 5%M Ω	P: 10%M Ω

MECHANICAL

	INCHES	MM
Length	.064 ($\pm .006$)	1.626 ($\pm .152$)
Width	.032 ($\pm .005$)	.813 ($\pm .127$)
Thickness	.010 - .033	.254 - .838
Top Term.	.012 ($\pm .005$)	.305 ($\pm .127$)
Bottom Term.	.015 ($\pm .005$)	.381 ($\pm .127$)

Approx. Weight .0025 grams

PACKAGING

Two packaging options are available:

- Waffle Pack - (100 per Tray Max.)
- Tape & Reel - (5000 per 7" Inch Reel Max.)

* PRODUCT LEVELS

All product levels are based on the same design as our "S" 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, R and S 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 C & U (epoxy bondable), wraparound style, and type W (wire bondable) are available. Also available in thin film MIL-PRF-55342 characteristic E & H. SOTA offers a full line of component parts in the 0603 size including Standard Grade, High-Reliability (customer specified testing), and zero-hm 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

10/26/00

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