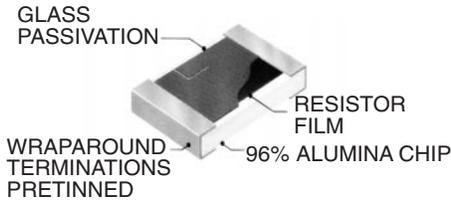


State of the Art, Inc.

M55342/10 Thick Film Chip Resistor

1010 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

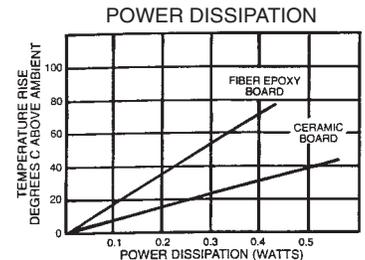
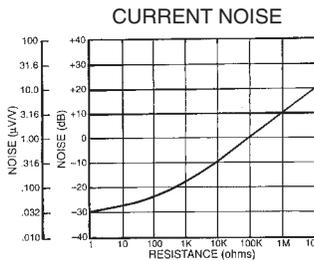
Resistance Range	5.6 Ω - 5.62M Ω
Tolerances	1%, 2%, 5% 10%
Maximum Power	500 mW
Maximum Voltage	75 Volts

ENVIRONMENTAL PERFORMANCE (1)

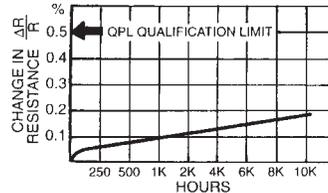
TCR (-55 to $+125^{\circ}\text{C}$ in ppm/ $^{\circ}\text{C}$)	< 100 ppm
Thermal Shock	$\pm 0.03\%$
Low Temperature Operation	$\pm 0.02\%$
Short-time Overload	$\pm 0.02\%$
Resistance to Bonding Exposure	$\pm 0.03\%$
Moisture Resistance	$\pm 0.05\%$
High Temperature Exposure	$\pm 0.05\%$
Life	See Chart

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

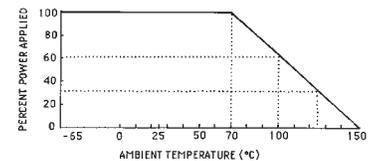
Solderability: Solder coating compatible with Sn60, 62 or 63 solders, provides good wetting with all types of solder attachment. All product is tested IAW Mil-Std-202, method 208, including 8 hour steam aging.



TYPICAL LIFE TEST PERFORMANCE



POWER DERATING



PART NUMBERING

M55342 K 10B 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	.105 (+.007/- .007)	2.67 (+.18/- .18)
Width	.100 (± 0.005)	2.54 ($\pm .13$)
Thickness	.015 - .033	.38 - .84
Top Term.	.010 - .020	.25 - .51
Bottom Term.	.010 - .020	.25 - .51

Approx. Weight .0165 grams

PACKAGING

Two packaging options are available:

Waffle Pack - (100 per Tray Max.)
Tape & Reel - (5000 per 8" 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 1010 size including Standard Grade, High-Reliability (customer specified testing), and zero-ohm jumpers. Custom part marking is available.

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