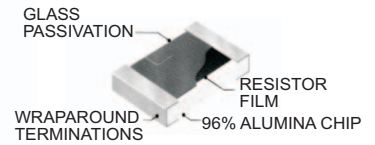




# State of the Art, Inc.

## 0504 Thick Film Chip Resistor

Standard Grade, Wraparound



### PERFORMANCE CHARACTERISTICS

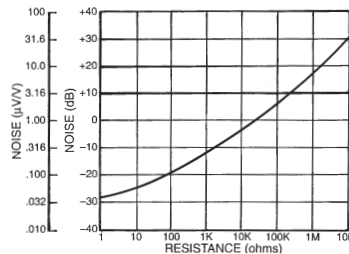
Resistance Range	1Ω-40MΩ
Tolerances (1)	1%, 2%, 5%, 10%
TCR	±100, ±200, ±300 ppm
Thermal Resistance	61.5°C/W
Maximum Power	125 mW
Maximum Voltage	40 Volts

### ENVIRONMENTAL PERFORMANCE (1)

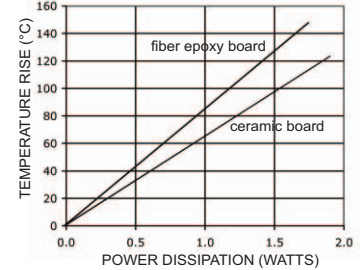
Thermal Shock	±0.03%
Low Temperature Operation	±0.03%
Short-time Overload	±0.03%
Resistance to Bonding Exposure	±0.03%
Moisture Resistance	±0.05%
High Temperature Exposure	±0.05%
Life Test	See Chart

(1) Typical resistance change, test methods and criteria per MIL-PRF-55342.

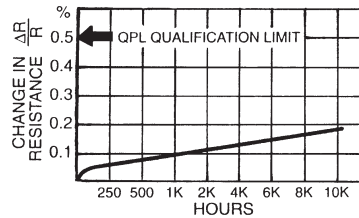
CURRENT NOISE



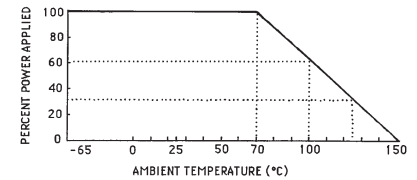
POWER DISSIPATION



LIFE TEST



POWER DERATING



### PART NUMBERING

#### S 0504 C P X 150 J 20 - TR

PACKAGING CODE: - TR = Tape/Reel - W = Waffle Carrier (Default packaging is Bulk)

TEMPERATURE CHARACTERISTIC: 10: ±100 ppm 20: ±200 ppm 30: ±300 ppm

TOLERANCE: F: 1% G: 2% J: 5% K: 10% M: 20%

**RESISTANCE VALUE:**

Four digits are used for tolerances of 1% or lower, three digits are used above 1%. Leading digits are significant while the last digit specifies the number of zeros to add. The letter "R" is used to represent the decimal for fractional ohmic values. Example: 5R6 is 5.6 ohms.

TERMINATION FINISH: X: Sn60 over Nickel (Solderable) C: Silver bearing (Epoxy bondable-RoHS) G: Gold (Epoxy bondable-RoHS) Y: Silver over Nickel (Solderable -RoHS) Z: Gold over Nickel (Solderable-RoHS)

PRODUCT DESIGNATION: P: Thick film on alumina U: Untrimmed alumina (10% & 20% tolerance only)

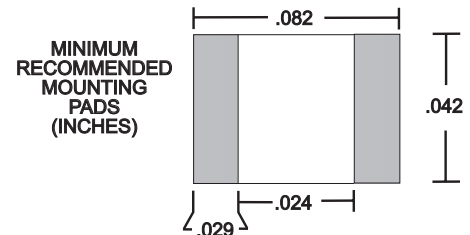
TERMINATION TYPE: C: Wraparound termination

SIZE CODE

GRADE: S: Standard Production H: High Reliability (For Screening options, contact the factory)

### MECHANICAL

	INCHES	MILLIMETERS
Length	.052 (.050 - .060)	1.32 (1.27 - 1.52)
Width	.038 (.036 - .044)	0.97 (0.91 - 1.12)
Thickness	.018 (.013 - .023)	0.46 (0.33 - 0.58)
Top Term	.009 (.005 - .015)	0.23 (0.13 - 0.38)
Bottom Term	.012 (.007 - .017)	0.31 (0.18 - 0.43)
Gap	.028 (.024 - .032)	0.71 (0.61 - 0.81)
Approx. Weight	.00244 grams	



\*Specifications subject to change without notice.\*

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