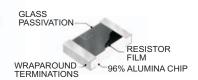


# State of the Art, Inc. 1005 Thick Film Chip Resistor

Standard Grade, Wraparound



#### PERFORMANCE CHARACTERISTICS

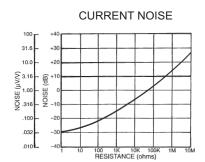
 $\begin{array}{lll} \text{Resistance Range} & 1\Omega - 40 \text{M}\Omega \\ \text{Tolerances (1)} & 0.5\%, 1\%, \, 2\%, \, 5\%, 10\% \\ \text{TCR} & \pm 100, \, \pm 200, \, \pm 300 \text{ ppm} \\ \text{Thermal Resistance} & 81.5^{\circ}\text{C/W} \\ \text{Maximum Power} & 250 \text{ mW} \\ \text{Maximum Voltage} & 75 \text{ Volts} \\ \end{array}$ 

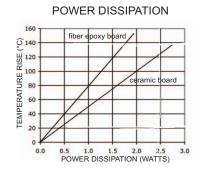
(1)+/- 0.5% limited availability

#### **ENVIRONMENTAL PERFORMANCE (2)**

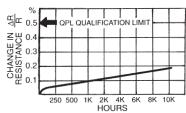
Thermal Shock	±0.03%
Low Temperature Operation	±0.03%
Short-time Overload	±0.03%
Resistance to Bonding Exposure	±0.03%
Moisture Resistance	±0.05%
High Temperature Exposure	±0.05%
Life Test	See Chart

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

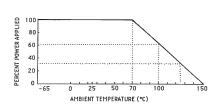




## LIFE TEST



#### POWER DERATING



## PART NUMBERING

#### S 1005 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 lobbs

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)

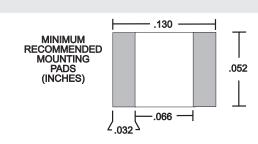
TERMINATION TYPE: C: Wraparound termination

SIZE CODE

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

### **MECHANICAL**

INCHES MILIMETERS Length .100 (.098 - .108) 2.54 Width .048 (.046 - .054) 1.22 (1.17 - 1.37) .018 (.015 - .023) 0.46 (0.38 - 0.58)**Thickness** .014 (.010 - .020) 0.36 Top Term (0.25 - 0.51) .014 (.010 - .020) 0.36 .072 (.068 - .076) 1.83 (0.25 - 0.51) (1.73 - 1.93) **Bottom Term** Gap Approx. Weight .0054 grams



**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 www.resistor.com** 

<sup>&</sup>quot;Specifications subject to change without notice."