# **5** <sup>2</sup>

# State of the Art, Inc. 2208 Thick Film Chip Resistor

10.0 +2

(g

VOISE

() 3.16 3.16 1.00 UNI UNI SION

.032

₩<sup>C</sup> 0.5

CHANGE IN CHANGE

> 250 500 1K 2K 4K 6K 8K 10K HOURS

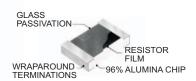
CURRENT NOISE

TANCE (ohms)

LIFE TEST

QPL QUALIFICATION LIMIT

Standard Grade, Wraparound



POWER DISSIPATION

POWER DISSIPATION (WATTS)

POWER DERATING

25 50

AMBIENT TEMPERATURE (°C)

ic boar

100

70

150

fiber epoxy bo

160

120

100

80

60 40

20

100

0

-65

PERCENT POWER APPLIED

() 140

TEMPERATURE RISE

# PERFORMANCE CHARACTERISTICS

Resistance Range Tolerances (1) TCR Thermal Resistance Maximum Power Maximum Voltage 1Ω-40MΩ 0.5%,1%, 2%, 5%,10% ±100, ±200, ±300 72.7°C/W 750 mW 175 Volts

(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.

# PART NUMBERING

### S 2208 C P X 150 J 20 - TR

5 2200	C P	F X 150 J 20 - IR				
		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**

Length Width Thickness Top Term Bottom Term Gap Approx. Weight	INCHES .225 (.223233) 5.1 .070 (.070076) 1.1 .028 (.023033) 0.1 .020 (.015025) 0.4 .020 (.015025) 0.4 .185 (.181189) 4.1 .0262 grams	78 (1.78 - 1.93) 71 (0.58 - 0.84) 51 (0.38 - 0.64) 51 (0.38 - 0.64)	MINIMUM RECOMMENDED MOUNTING PADS (INCHES)
"Specifications subject to cha	nge without notice."		2 .050 2

 www.resistor.com

 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

02/08/08