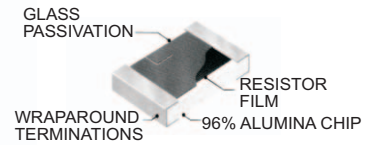




# State of the Art, Inc.

## 2208 Thick Film Chip Resistor

Standard Grade, Wraparound



### PERFORMANCE CHARACTERISTICS

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

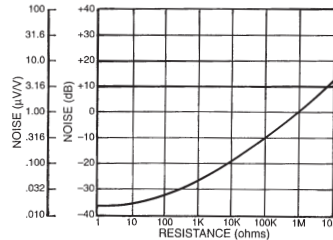
(1)+/- 0.5% limited availability

### ENVIRONMENTAL PERFORMANCE (2)

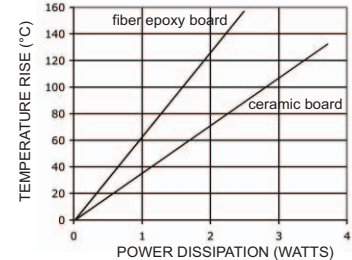
|                                |           |
|--------------------------------|-----------|
| Thermal Shock                  | ±0.03%    |
| Low Temperature Operation      | ±0.03%    |
| Short-time Overload            | ±0.03%    |
| Resistance to Bonding Exposure | ±0.03%    |
| Moisture Resistance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

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

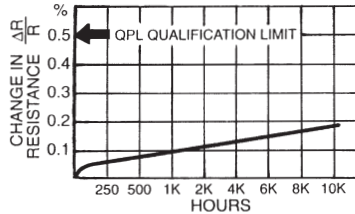
CURRENT NOISE



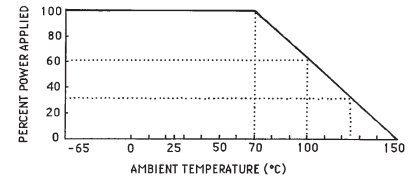
POWER DISSIPATION



LIFE TEST



POWER DERATING



### PART NUMBERING

#### S 2208 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)

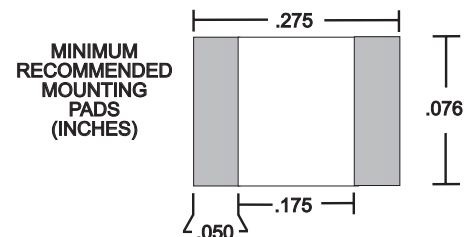
TERMINATION TYPE: C: Wraparound termination

SIZE CODE

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

### MECHANICAL

|                | INCHES             | MILLIMETERS        |
|----------------|--------------------|--------------------|
| Length         | .225 (.223 - .233) | 5.72 (5.66 - 5.92) |
| Width          | .070 (.070 - .076) | 1.78 (1.78 - 1.93) |
| Thickness      | .028 (.023 - .033) | 0.71 (0.58 - 0.84) |
| Top Term       | .020 (.015 - .025) | 0.51 (0.38 - 0.64) |
| Bottom Term    | .020 (.015 - .025) | 0.51 (0.38 - 0.64) |
| Gap            | .185 (.181 - .189) | 4.70 (4.60 - 4.80) |
| Approx. Weight | .0262 grams        |                    |



\*Specifications subject to change without notice.\*