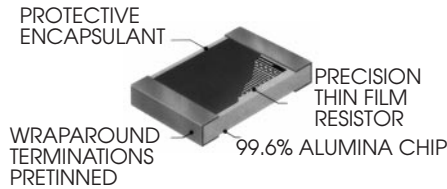




# State of the Art, Inc.

## 1505 Thin Film Chip Resistor

Standard Grade, Surface Mount, Solderable



### FEATURES

- Tolerances to  $\pm 0.1\%$
- Operating temperature range :  $-55^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- Pretinned (Sn60) nickel barrier terminations
- TCR's to  $\pm 25$  ppm
- Made with the same materials and process as our MIL-PRF-55342 "S" level qualified chips
- Suitable for solder reflow, vapor phase, or wave solder attachment

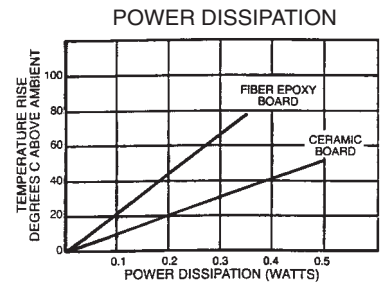
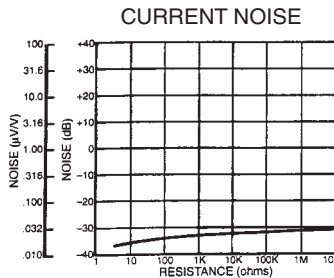
### PERFORMANCE CHARACTERISTICS

Resistance Range (1)	$5\Omega - 1.5\text{M}\Omega$
Tolerances (2)	0.1%, 0.25%, 0.5%, 1%, 2%, 5%, 10%
Maximum Power	350 mW
Maximum Voltage	125 Volts

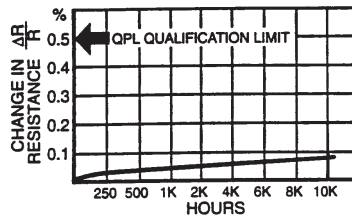
### ENVIRONMENTAL PERFORMANCE (3)

TCR ( $-55$ to $+125^{\circ}\text{C}$ in ppm/ $^{\circ}\text{C}$ )	$< 25$ ppm
Thermal Shock	$\pm 0.02\%$
Low Temperature Operation	$\pm 0.02\%$
Short-time Overload	$\pm 0.02\%$
Resistance to Bonding Exposure	$\pm 0.02\%$
Moisture Resistance	$\pm 0.03\%$
High Temperature Exposure	$\pm 0.03\%$
Life	See Chart

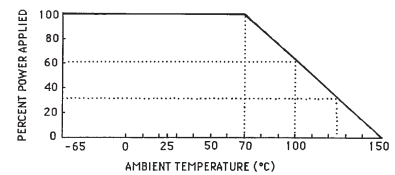
- (1) SOTA offers milliohm and high megohm resistors with excellent performance.
- (2)  $\pm 0.5\%$  in limited availability
- (3) Typical resistance change, the maximum is the same as MIL-PRF-55342. Test methods are per MIL-PRF-55342.



### TYPICAL LIFE TEST PERFORMANCE

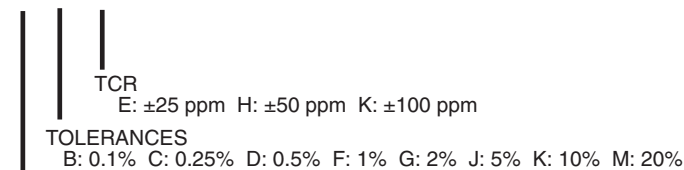


### POWER DERATING



### PART NUMBERING

**S1505CA 150 J H B**



### MECHANICAL

	INCHES	MM
Length	.155 (+.007/- .007)	3.94 (+.17/- .17)
Width	.050 (+.005/- .005)	1.27 (+.13/- .13)
Thickness	.015 - .020	.38 - .51
Top Term.	.010 - .020	.25 - .51
Bottom Term.	.010 - .025	.25 - .64

Approx. Weight .0079 grams

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.

### PACKAGING

Three packaging options are available:

- Bulk Packaging - (5000 per Bag Max.)
- Waffle Pack - (128 per Tray Max.)
- Tape & Reel - (5000 per Reel Max.)

### OPTIONS

SOTA offers a full line of component parts in the 1505 size including Military (MIL-PRF-55342 "S" level) and High-Reliability (customer specified testing). Available options are epoxy bondable and wire bondable terminations, custom part marking, and untrimmed resistors.

STATE OF THE ART, INC. 2470 Fox Hill Road, State College, PA 16803-1797  
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02/08/98

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