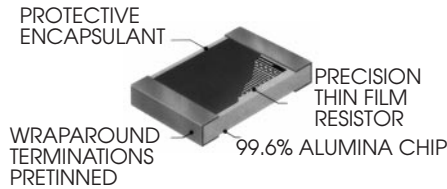




State of the Art, Inc.

0505 Thin Film Chip Resistor

Standard Grade, Surface Mount, Solderable



FEATURES

- Tolerances to $\pm 0.1\%$
- Operating temperature range : -55°C to $+150^{\circ}\text{C}$
- Pretinned (Sn60) nickel barrier terminations
- TCR's to ± 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

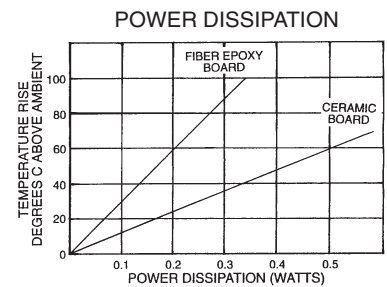
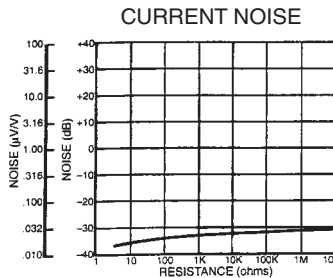
PERFORMANCE CHARACTERISTICS

Resistance Range (1)	$5\Omega - 470\text{K}\Omega$
Tolerances (2)	0.1%, 0.25%, 0.5%, 1%, 2%, 5%, 10%
Maximum Power	125 mW
Maximum Voltage	40 Volts

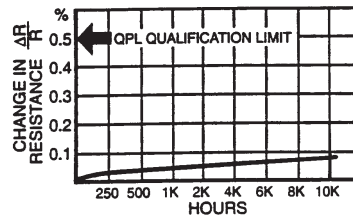
ENVIRONMENTAL PERFORMANCE (3)

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

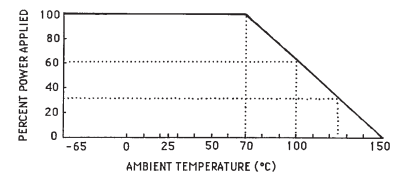
- (1) Minimum resistance range at 0.1% tolerance is 100 ohms.
- (2) $\pm 0.05\%$ in limited availability - consult factory
- (3) Typical resistance change, the maximum is the same as MIL-PRF-55342. Test methods are per MIL-PRF-55342.



TYPICAL LIFE TEST PERFORMANCE

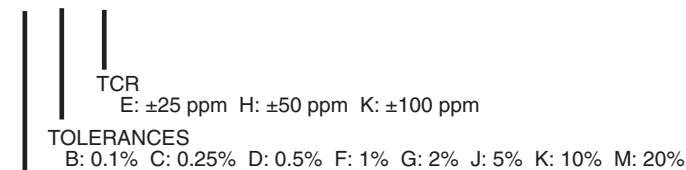


POWER DERATING



PART NUMBERING

S0505CA 150 J H B



RESISTANCE VALUE
Three or four digits are used with all leading digits significant. Four digits are used for 1% tolerance or lower, otherwise three digits are used. 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.

MECHANICAL

	INCHES	MM
Length	.055 (+.006/- .006)	1.40 (+.15/- .15)
Width	.050 (+.005/- .005)	1.27 (+.13/- .13)
Thickness	.012 - .033	.30 - .84
Top Term.	.005 - .015	.13 - .38
Bottom Term.	.010 - .020	.25 - .51

Approx. Weight .0032 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 - (400 per Tray Max.)
- Tape & Reel - (5000 per Reel Max.)

OPTIONS

SOTA offers a full line of component parts in the 0505 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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02/01/98

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