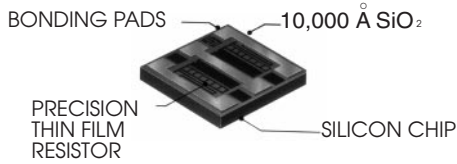




# State of the Art, Inc.

## 0404 Thin Film On Silicon Resistor

Surface Mount, Top-Side Termination/Bottom Isolated



(STYLE DEPENDS ON VALUE)

### FEATURES

- Tolerances to  $\pm 0.1\%$
- Operating temperature range :  $-55^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- For high-density hybrid circuits where space is at a premium.
- TCR's to  $\pm 25$  ppm
- Delivers greater power handling capability and lighter weight for the size than chips constructed on alumina.

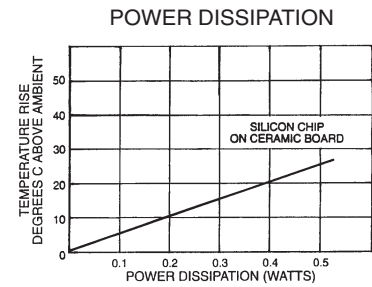
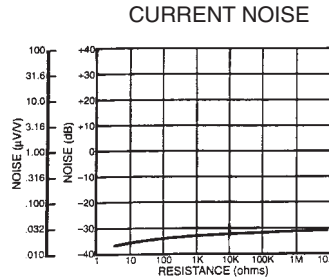
### PERFORMANCE CHARACTERISTICS

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	100 Volts

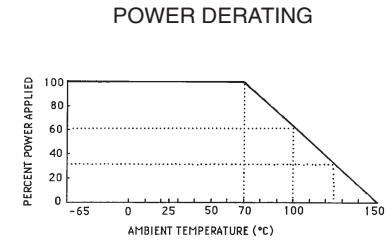
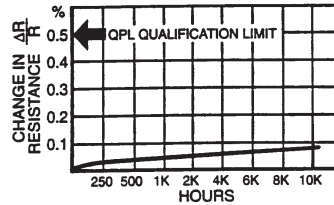
### ENVIRONMENTAL PERFORMANCE

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	$\pm 0.03\%$
Moisture Resistance	$\pm 0.05\%$
High Temperature Exposure	$\pm 0.05\%$
Life	See Chart

- (1) Minimum resistance range at 0.1% tolerance is 100 ohms.  
 (2)  $\pm 0.05\%$  in limited availability - consult factory



### TYPICAL LIFE TEST PERFORMANCE



### MECHANICAL

#### S0404AS 150 J H W

TERMINATION MATERIAL	W: Gold A: Aluminum
TCR	E: $\pm 25$ ppm H: $\pm 50$ ppm K: $\pm 100$ ppm
TOLERANCES	B: 0.1% C: 0.25% D: 0.5% F: 1% G: 2% J: 5% K: 10% M: 20%

#### 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.

	INCHES	MM
Length	.040 (+.002/- .002)	1.02 (+.05/- .05)
Width	.040 (+.002/- .002)	1.02 (+.05/- .05)
Thickness	.009 - .012	.23 - .30
Termination	.004 - .006	.10 - .15

Approx. Weight .00074 grams

### PACKAGING

Silicon chips are only packaged in waffle pack at a maximum of 400 per tray.

### OPTIONS

SOTA offers a full line of component parts in the 0404 size including termination style D (top-side termination with isolated metalized bottom) and style F (Back Contact Resistor - BCR). Also offered in center-tap configurations.

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