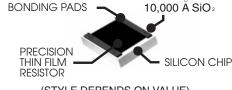
# State of the Art, Inc. 0505 Thin Film On Silicon Resistor Surface Mount, Top-Side Termination/Bottom Isolated



## (STYLE DEPENDS ON VALUE)

### PERFORMANCE CHARACTERISTICS

Resistance Range (1) 5Ω-2.5MΩ Tolerances (2) 0.1%, 0.25%, 0.5%, 1%, 2%, 5%, 10% 500 mW Maximum Power Maximum Voltage 100 Volts 10

#### ENVIRONMENTAL PERFORMANCE

TCR (-55 to +125 C in ppm/C)	< 25 ppm
Thermal Shock	±0.02%
Low Temperature Operation	±0.02%
Short-time Overload	±0.02%
Resistance to Bonding Exposure	±0.03%
Moisture Resistance	±0.05%
High Temperature Exposure	±0.05%
Life	See Chart

TCR

TOLERANCES

**RESISTANCE VALUE** 

Silicon chips are only packaged in waffle pack at a

S0505AS 150 J H W

ohms.

PACKAGING

maximum of 400 per tray.

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

**TERMINATION MATERIAL** 

W: Gold A: Aluminum

E: ±25 ppm H: ±50 ppm K: ±100 ppm

B: 0.1% C: 0.25% D: 0.5% F: 1% G: 2% J: 5% K: 10% M: 20%

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

## FEATURES

TEMPERATURE RISE DEGREES C ABOVE AMBIENT

80

- Tolerances to ±0.1%
- · Operating temperature range :
- -55 C to +150 C

(NA 3.) (gp

₩ 0.5

P.0 CHANGE IN CH

OP

250 500

IOISE

· For high-density hybrid circuits where space is at a premium.

CURRENT NOISE

TANCE (ohms)

JMI

6K

TYPICAL LIFE TEST PERFORMANCE

QUALIFICATION

1K 2K 4K HOURS

TCR's to ± 25 ppm

· Delivers greater power handling capability and lighter weight for the size than chips constructed on alumina.

POWER DISSIPATION

0.2 0.3 0.4 0 POWER DISSIPATION (WATTS)

POWER DERATING

SILICON CHIP ON CERAMIC BOARD

PERCENT POWER APPLIED 60 40 20 0 50 8K 25 AMBIENT TEMPERATURE (°C) MECHANICAL INCHES MM .050 (+.002/-.002) .050 (+.002/-.002) 1.27 (+.05/-.05) 1.27 (+.05/-.05) Length Width Thickness .009 -`.012 .23 - .30 .004 - .012 .10 - .30

Termination

Approx. Weight .0011 grams

### OPTIONS

SOTA offers a full line of component parts in the 0505 size including termination style D (top-side termination with isolated metalized bottom) and style F (Back Contact Resistor - BCR).

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