



State of the Art, Inc.

0303 Thin Film Chip Resistor

Standard Grade, Surface Mount

PROTECTIVE
ENCAPSULANT



99.6% ALUMINA CHIP

PRECISION
THIN FILM
RESISTOR

FEATURES

- Tolerances to $\pm 0.1\%$
- Operating temperature range :
-55° C to +150° C
- For high-density hybrid circuits
where space is at a premium

- TCR's to ± 25 ppm
- Made with the same materials and
process as our MIL-PRF-55342 "S"
level qualified chips
- Delivers greater power handling capability
with lighter weight construction

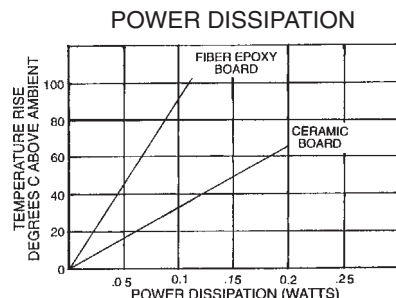
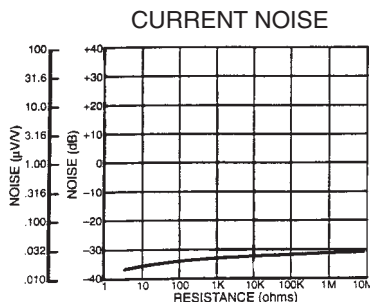
PERFORMANCE CHARACTERISTICS

Resistance Range $5\Omega - 100K\Omega$
Tolerances 0.1%, 0.25%, 0.5%, 1%, 2%, 5%, 10%
Maximum Power 50 mW
Maximum Voltage 30 Volts

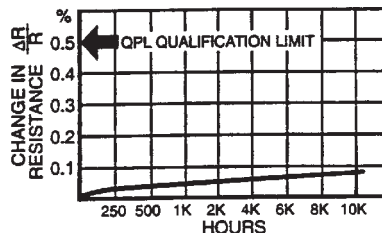
ENVIRONMENTAL PERFORMANCE (1)

TCR (-55 to +125 °C in ppm/°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

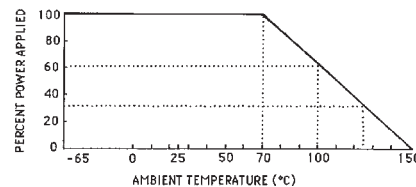
(1) Typical resistance change, the maximum is the same
as MIL-PRF-55342. Test methods are per MIL-PRF-55342.



TYPICAL LIFE TEST PERFORMANCE



POWER DERATING



PART NUMBERING

S0303AA 150 J H W

Termination Material
W: Gold B: Pretinned Solder over Nickel

TCR
E: ± 25 ppm H: ± 50 ppm K: ± 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.

Substrate Material A: Alumina Ceramic

Termination Style A: Top sided with Bottom Insulated C: Wraparound

PACKAGING

Two packaging options are available:

- Bulk Packaging - (5000 per Bag Max.)
- Waffle Pack - (400 per Tray Max.)

MECHANICAL

	INCHES	MM
Length	.030 (+.002/-.002)	.76 (+.05/-.05)
Width	.030 (+.002/-.002)	.76 (+.05/-.05)
Thickness	.009 - .011	.23 - .27
Top Term.	.004 - .006	.10 - .15

Approx. Weight .00073 grams

All product is tested IAW Mil-Std-202, method 208,
including 8 hour steam aging.

OPTIONS

SOTA offers a full line of component parts in the 0303 size including High-Reliability (customer specified testing). Available options are epoxy bondable and wire bondable terminations, and custom part marking.

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03/08/01

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