State of the Art, Inc.

1005 High Frequency Chip Attenuator

Thin Film, Top Surface Terminations

PERFORMANCE CHARACTERISTICS

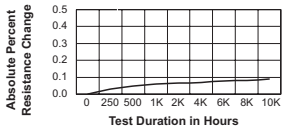
Attenuation Factor	1 to 20 dB
Maximum Power	250 milliwatts
Frequency Range	DC to 20 GHz

ENVIRONMENTAL PERFORMANCE*

Thermal Shock	±0.02%
Low Temperature Operation	±0.02%
Short Time Overload	±0.02%
Resistance to Bonding Exposure	±0.02%
Moisture Resistance	±0.03%
High Temperature Exposure	±0.03%

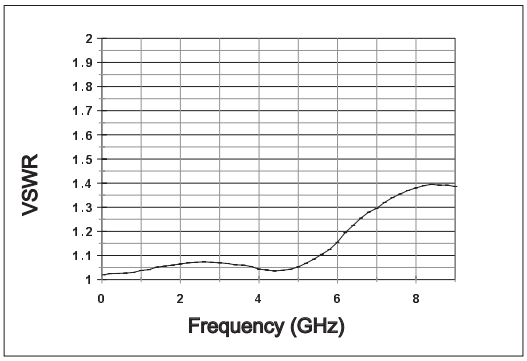
* Typical percent resistance change -test methods and actual specification limits are in accordance with Mil-PRF-55342.

TYPICAL LIFE PERFORMANCE



Consult our Engineering Department for frequency specific performance requirements.

The Frequency response data plotted below shows an example of VSWR obtained in pressure contact fixtures. Data for chips which are solder attached to matched circuit traces may exhibit even better performance.



Attenuation Tolerance

Increment (dB)	DC - 4 GHz	4 - 8 GHz	8 - 13 GHz	13 - 16 GHz	16 - 20 GHz
1 to 10 dB	± 0.5 dB	± 0.5 dB	± 0.5 dB	± 0.75 dB	± 1.0 dB
11 to 20 dB	± 0.5 dB	± 0.5 dB	± 0.75 dB	± 1.0 dB	± 1.5 dB

PART NUMBERING

S 1005 A C 10B0 B (******) W

PACKAGING CODE: - TR = Tape/Reel - W = Waffle Carrier (Default packaging is Bulk)

SCD REFERENCE

TERMINATION FINISH: B: Sn60 over nickel barrier, W: Gold, K: Sn62 bump, M: 80/20 Au/Sn bump, Y: Silver over nickel barrier

VALUE CODE:
Three or Four digits are used to express the attenuation value (available from 1 to 20 dB in 1dB increments). The letter "B" is used to represent the decimal. Example: 10B0 = 10 dB, 1B5= 1.5 dB, etc.

PRODUCT DESIGNATION: C: Attenuator on alumina

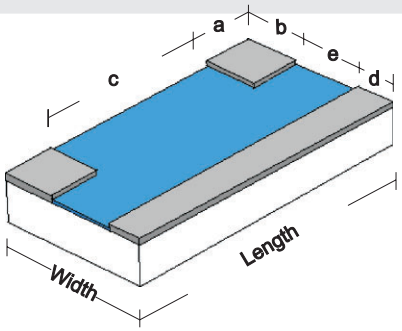
TERMINATION TYPE: A: Topside termination

SIZE CODE

GRADE: S: Standard Production H: High Reliability (For screening options, contact the factory)

MECHANICAL

	INCHES	MILLIMETERS
Length	.100 (.098 - .102)	2.55 (2.50 - 2.60)
Width	.050 (.048 - .052)	1.28 (1.23 - 1.33)
Thickness	.015 (.013 - .023)	0.38 (0.33 - 0.58)
I/O Length (a)	.020 (.017 - .023)	0.51 (0.44 - 0.59)
I/O Width (b)	.020 (.017 - .023)	0.51 (0.44 - 0.59)
I/O Gap (c)	.056 (.054 - .058)	1.43 (1.38 - 1.48)
Ground (d)	.010 (.007 - .013)	0.25 (0.18 - 0.33)
I/O Ground Gap (e)	.017 (.015 - .019)	0.44 (0.39 - 0.49)
Approx. Weight	.0053 grams	



"Specifications subject to change without notice."

www.resistor.com

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**

07/30/08