

ATTENUATOR CHIP 2 WATT



DATA SHEET

PART SERIES: TS03XXS

SHEET 1 OF 3
Dwg 1000445

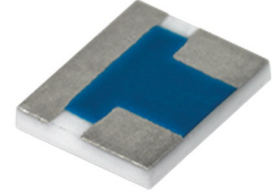
EN 16-0604
Revision L

FEATURES

- Small Footprint
- High Power
- Surface Mount
- Low VSWR
- Easy Installation
- Wide Attenuation Offering

APPLICATIONS

- Mobile Networks
- Broadcast
- High Power Amplifiers
- Isolators/Circulators
- Military
- Instrumentation



GENERAL DESCRIPTION

EMC Technology offers the widest selection of chip attenuators worldwide. Chip components are offered in Alumina, Aluminum Nitride, Beryllium Oxide, and CVD diamond for maximum performance.

ORDERING INFORMATION

Part Identifier: TS03XXS
(XX) – dB Value

SPECIFICATIONS

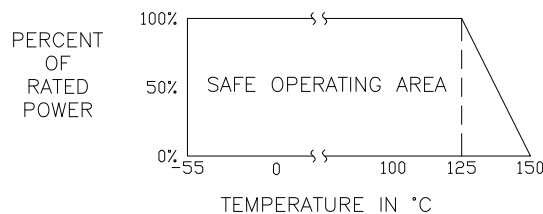
1.0 ELECTRICAL

- Nominal Impedance: 50 ohms
- Frequency Range: DC – 12.4 GHz
- Attenuation Values Available: 0 – 20 in 1 dB increments
- Attenuation Accuracy:

ATTENUATION ACCURACY			
dB	DC – 4 GHz	4 – 8 GHz	8 – 12.4 GHz
0	+0.3, -0.0	+0.5, -0.0	+0.5, -0.0
1 – 3	±0.3	±0.5	±0.5
4 – 6	±0.4	±0.5	±0.5
7 – 10	±0.5	±0.5	±0.75
11 – 15	±0.75	+0.5, -3.0	+0.5, -3.5
16 - 20	±1.0	+0.5, -4.0	+1.0, -6.0

Input Power CW: 2 Watts full rated power to 125°C, derated linearly to 0 watts at 150°C.

POWER RATING AND DERATING



- Peak Power: 50 watts for 10us pulse width @ 1% duty cycle.
- VSWR: DC – 4 GHz - 1.25:1
4 – 8 GHz - 1.35:1
8 - 12 GHz - 1.50:1

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2.0 ENVIRONMENTAL

Operating Temperature:	-55°C to +150°C
Non-operating Temperature:	-55°C to +150°C
Temperature Coefficient:	+/-200 PPM / °C max
Altitude Non-Operating:	Sea Level to 50,000 Feet.
Altitude Operating:	Sea Level to 50,000 Feet.
Vibration:	Per MIL-STD-202, METHOD 204, COND. D.
Shock:	Per MIL-STD-202, METHOD 213, COND. I.
Moisture Resistance:	Per MIL-STD-202, METHOD 106 Except Sub cycle Steps 7a and 7b. Polarization and Load Are Not Applicable.

3.0 MARKING

Unit Marking:	"dB Value"
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4.0 QUALITY ASSURANCE

Sample Inspect Per MIL-STD-105, Level II, 1.0% AQL₂

Visual and Mechanical Inspection for Conformance to Outline Drawing

Measure Attenuation and VSWR

Data Retention - Standard

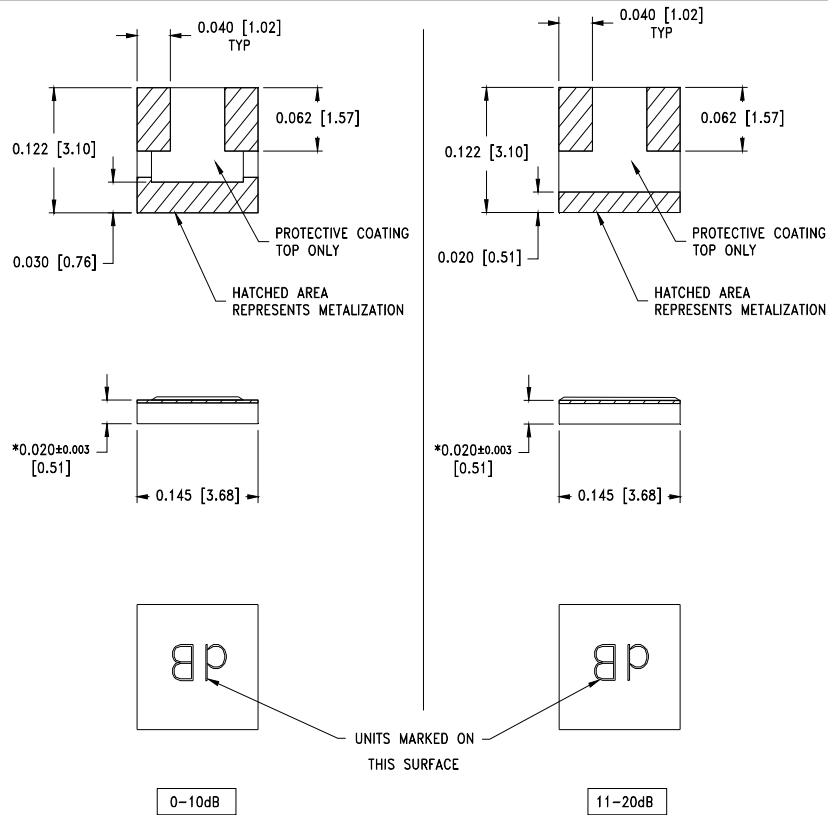
5.0 PACKAGING

Standard Packaging:	Tape and Reel
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6.0 MECHANICAL

Resistive Film:	Thin Film, Tantalum Nitride
Terminal Material:	Thick Film, Nickel Barrier, Solder Fused
Metric Dimensions:	Provided for reference only
Workmanship	PER MIL-R-55342

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* DIMENSIONS APPLY BEFORE SOLDER, ALLOW 0.015 MAX FOR ALL PRETINNED SURFACES.

Unless Otherwise Specified: TOLERANCE: X.XXX = ± 0.005

7.0 SUGGESTED MOUNTING FOOTPRINT

Part Number	Inches						mm					
	A	B	C	D	S	W	A	B	C	D	S	W
TS03XXS	0.043	0.065	0.065	0.025	0.040	0.150	1.09	1.65	1.65	0.64	1.02	3.81

