

ATTENUATOR CHIP 1 WATT

DATA SHEET

PART SERIES: TS05XXS

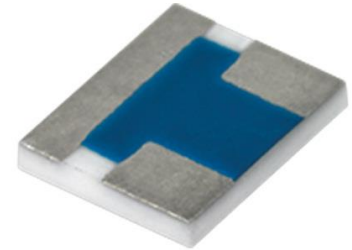
SHEET 1 OF 3
Dwg 1000485ECO-076069
Revision P

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: TS05XXS
(XX) – dB Value

SPECIFICATIONS

1.0 ELECTRICAL

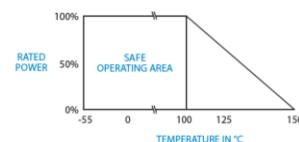
Nominal Impedance: 50 Ω
Frequency Range: DC – 18 GHz
Attenuation Values Available: 0 – 20 in 1 dB increments
Attenuation Accuracy:

ATTENUATION ACCURACY				
dB	DC – 4 GHz	4 – 8 GHz	8 – 12.4 GHz	12.4 – 18 GHz
0	-0,+ .3	-0,+ .5	-0,+ .5	-0,+ .5
1 – 3	± 0.3	± 0.5	± 0.5	± 0.5
4 – 6	± 0.4	± 0.5	± 0.5	± 0.75
7 – 10	± 0.5	± 0.5	± 0.75	± 1.0
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:

Power Rating	POWER RATING							
	dB Values	Watts	dB Values	Watts	dB Values	Watts	dB Values	Watts

Power Derating Curve



Peak Power: 1 watt for 10 μ s pulse width @ 1% duty cycle.
VSWR: DC – 4 GHz - 1.25 Max
4 – 8 GHz - 1.35 Max
8 – 18 GHz - 1.50 Max

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2.0 ENVIRONMENTAL

Operating Temperature:	-55°C to +150°C
Non-operating Temperature:	-65°C to +150°C
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 subcycle steps 7a and 7b and polarization and load are not applicable.

3.0 MARKING

Unit Marking:	Marked with dB value. Legibility and permanency PER MIL-STD-130
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4.0 QUALITY ASSURANCE

Sample inspect per ANSI/ASQC Z1.4 general inspection, level II, AQL = 1.0.

Visual and mechanical examination for conformance to outline dwg requirements.

Perform inspection in accordance with 824W170 and 824F036 for commercial grade product.

Test data requirements:

No test data required for customer.

Data retention – 24 months packaging

Standard Packaging:	Tape and Reel
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ATTENUATOR

CHIP 1 WATT

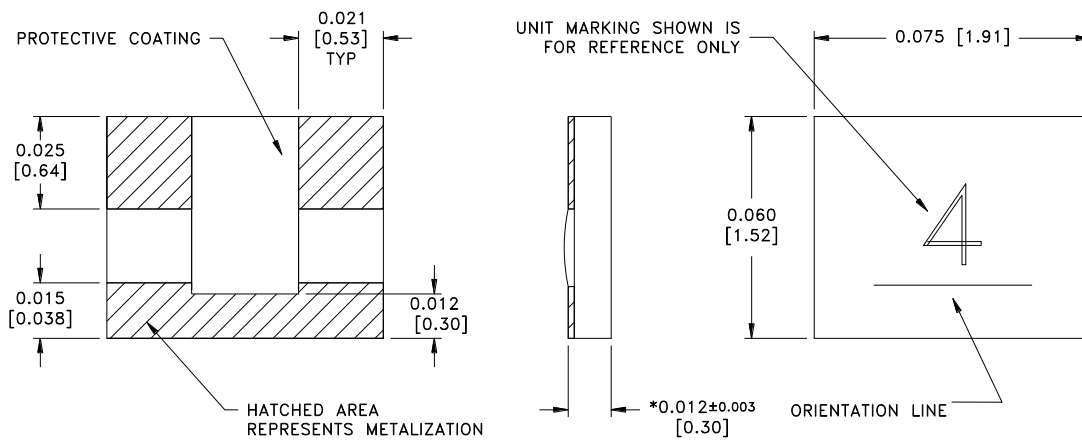
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5.0 MECHANICAL

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



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

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

6.0 SUGGESTED MOUNTING FOOTPRINT

Part Number	Inches						mm					
	A	B	C	D	S	W	A	B	C	D	S	W
TS05XXS	0.025	0.027	0.030	0.015	0.019	0.080	0.64	0.69	0.76	0.38	0.48	2.03

