

ATTENUATOR HIGH RELIABILITY CHIP

DATASHEET

PART SERIES: HR95XXT3S

Sheet 1 of 3
Doc# HR95XXT3S-1009435ECO-082606
Revision B

ORDERING INFORMATION

PART IDENTIFIER: HR95XXT3S

→ (XX)=dB Value (00 – 20 dB see Table 1)

Engineering Notes:

Assembly DWG: 1901294

TABLE 1			
ATTENUATION ACCURACY			
dB	DC - 4 GHz	4 - 8 GHz	8 - 12.4 GHz
0	-0, +.3	-0, +.5	-0, +.5
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

SPECIFICATIONS

1. ELECTRICAL:

Nominal Impedance:	50 Ω
Frequency Range:	DC – 12.4 GHz
Attenuation Values Available:	0-20 dB in 1 dB Increments
Attenuation Accuracy:	See Table 1
Attenuation Stability:	0.0001 dB/dB/°C
VSWR:	DC - 4 GHz – 1.25, 4 – 8 GHz – 1.35, 8 – 12.4 GHz – 1.50.
Input Power: 100 Milliwatts CW	Full Rated Power To 125°C, Derated Linearly to 0 Watts at 150°C. Peak Power, 1 Watt for 10 μ S Pulse Width @ 1% Duty Cycle.

2. ENVIRONMENTAL:

Altitude:	Non-Operating: Sea Level to 50,000 Feet. Operating: Sea Level to 50,000 Feet.
Temperature Range:	Non-Operating: -55°C to +150°C Operating: -55°C to +150°C
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 and Polarization and Load are not applicable.

3. MARKING:

Unit Marking:	Marked only with color dot. Legibility and Permanency per MIL-STD-130.
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4. QUALITY ASSURANCE:

100% Inspect:	Visual and Mechanical examination for conformance to outline drawing requirements. Measure and Record VSWR and Attenuation at Frequency as follows: 0 to 10.0 dB - @ 4.0 GHz 11.0 to 20.0 dB - @ 1.0 GHz Acceptance Limits: VSWR: See Electrical (Section 1 above). Attenuation: See Electrical (Section 1 above). 10 Cycle Thermal Shock @ -55°C to +125°C. Measure and Record VSWR and Attenuation at Frequency as follows: 0 to 10.0 dB - @ 4.0 GHz 11.0 to 20.0 dB - @ 1.0 GHz Acceptance Limits: Same as Section 1 above. 168 Hour Burn-In @ 100 MW @ 25°C. Measure and Record VSWR and Attenuation at Frequency as follows: 0 to 10.0 dB - @ 4.0 GHz 11.0 to 20.0 dB - @ 1.0 GHz Acceptance Limits: Same as Section 1 above.
Test Data Requirements:	Test Data Required. Data Retention Period – 24 Months.

5. PACKAGING:

Standard Pack per 755W002 (Serialized Waffle Pack).

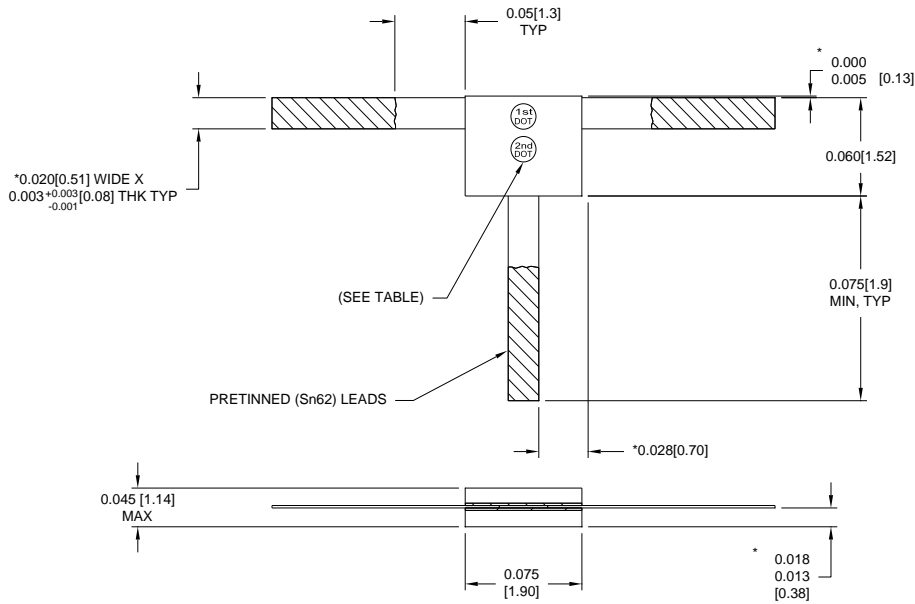
6. MECHANICAL:

Substrate and Top Plate Material:	Alumina 96%, MIL - I – 10.
Resistive Element Material:	Tantalum Nitride.
Terminal Material:	Platinum Gold.
Lead Material:	Copper, ASTM B152.
Lead Finish:	Gold, MIL-G-45204, Type II, Class 1.
Solder Material:	Sn62, QQ-S-571.
Metric Dimensions [mm]:	Provided for reference information only.
Workmanship:	Per MIL-R-55342.
Outline Drawing:	See Sheet 3.

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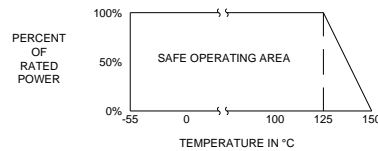
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REFERENCE TABLE					
dB	DOT COLOR		dB	DOT COLOR	
VAL	1st	2nd	VAL	1st	2nd
0	BLK	---	11	BRN	BRN
1	BRN	---	12	BRN	RED
2	RED	---	13	BRN	ORG
3	ORG	---	14	BRN	YEL
4	YEL	---	15	BRN	GRN
5	GRN	---	16	BRN	BLU
6	BLU	---	17	BRN	VIO
7	VIO	---	18	BRN	GRY
8	GRY	---	19	BRN	WHT
9	WHT	---	20	RED	BLK
10	BRN	BLK			

ALLOW +/-0.010 ON TOP PLATE FOR MISALIGNMENT

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

POWER RATING AND DERATING

Unless Otherwise Specified Dimensions are in Inches: Tolerance X.XXX = ± 0.005 X.XX = ± 0.02