

Surface Mount Attenuator
60 Watts, 30dB



Features:

- DC – 6 GHz
- Power 60W (AVG)
- Low VSWR
- RoHS Compliant
- 100% Tested
- Non-Nichrome Resistive Element
- AIN Ceramic

Description:

The XRA60CC30SES is a high performance Aluminum Nitride (AlN) attenuator intended as a cost competitive alternative to a variety of available technologies in the market today. It is designed for a wide variety of end markets including but not limited to: Telecom, LTE and 5G, COTS Mil-Aero and many ISM band applications. The high power handling makes the part ideal as a companion for directional couplers used in output power monitoring and also for use with Isolators. The attenuator is also RoHS compliant!

General Specifications:

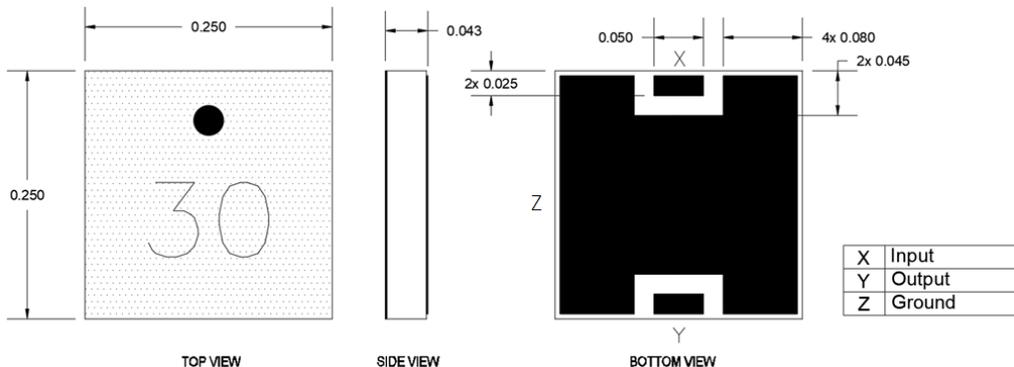
| | |
|-----------------------|-------------------------------------|
| Resistive Element | Thick film |
| Substrate | AlN Ceramic |
| Terminal Finish | Matte Tin over Nickel Barrier |
| Operating Temperature | -55 to +150°C (see de-rating chart) |

Electrical Specifications:

| | |
|--------------------------|-------------------------------------|
| Attenuation Value | 30.5 dB \pm 2.0 dB DC to 2.3 GHz |
| | 30.5 dB \pm 1.5 dB 2.3 to 5.0 GHz |
| Power | 30.5 dB \pm 3.5 dB 5.0 to 6.0 GHz |
| | 60 Watts (Avg Watts @ 100°C) |
| Frequency Range | DC – 6.0 GHz |
| Input Return Loss | 20 dB DC – 5.0 GHz |
| | 16 dB 5.0 – 6.0 GHz |

Specification based on unit properly installed using suggested mounting instructions and a 50 ohm nominal impedance. Specifications subject to change.

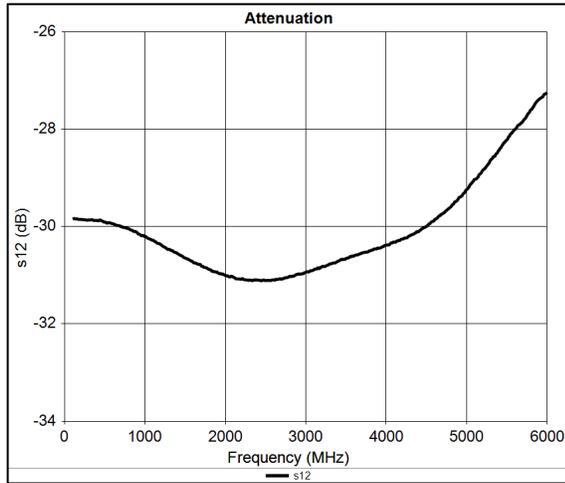
Mechanical Outline:



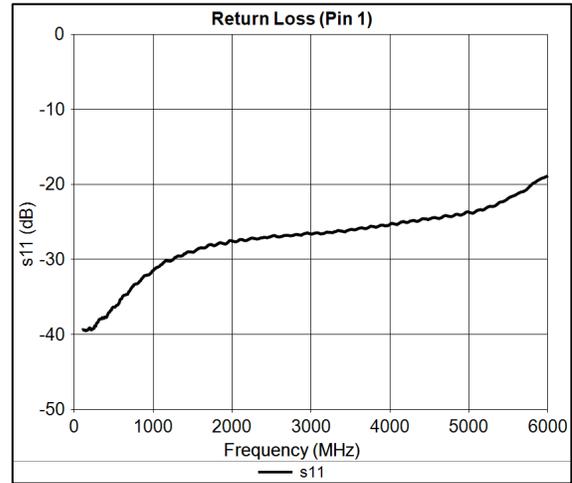
FOR PROPER OPERATION PAD X MUST BE CONNECTED TO THE INPUT.
Tolerance is ± 0.005 ", unless otherwise specified. Designed to meet or exceed applicable portions of MIL-E-5400.
All dimensions in inches.

Typical Performance:

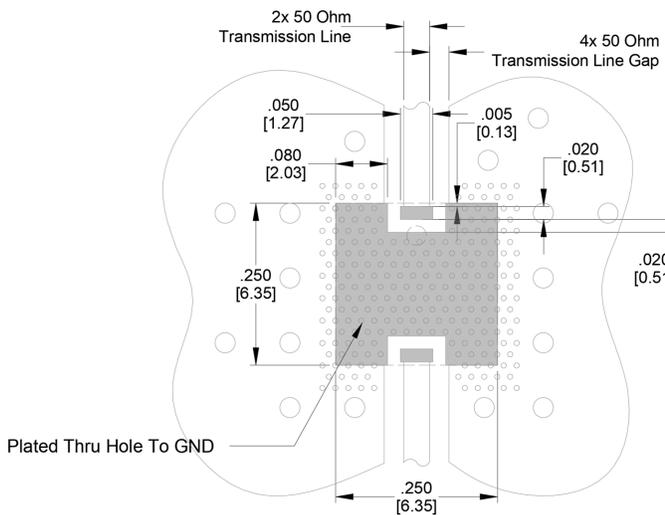
Attenuation:



Return loss:



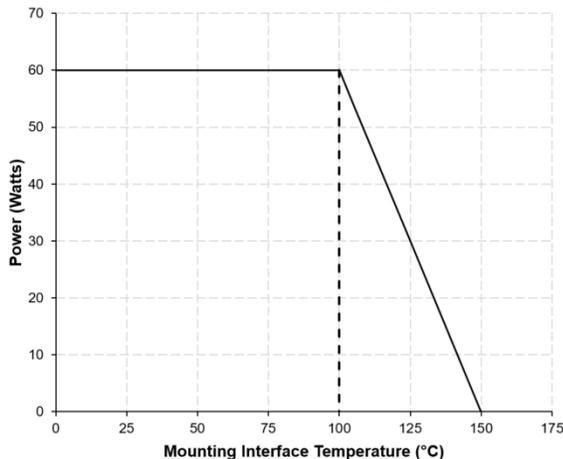
Mounting Footprint:



1. The component has been designed and qualified with this mounting footprint with a 0.020" test board with Dk value of approximately 3.5 comprised of commonly used board substrate materials such as RO4350 and Isola I-tera MT40. Deviations from the recommended mounting footprint may reduce RF and power handling performance. It is the customer's responsibility to qualify the component in the end application.
2. 2x 50 ohm transmission line is for reference only and can be oriented in any direction. Customer to determine transmission line and gap dimensions to achieve 50 ohm impedance for end application.
3. To ensure proper electrical and thermal performance there must be a ground plane with 100% solder connection underneath the part orientated as shown with part marking facing up.
4. This component footprint is generic and covers multiple attenuator model numbers that share the same package size. Exact component and pad outlines and orientation marker may vary.
5. PTH connecting pads to ground are representative.
6. Ground vias under part should be filled to prevent solder wicking.
7. Solder mask and solder stencil dimensions may vary due to different manufacturer capabilities and process variations. Layers may be modified to account for manufacturer capabilities.
8. Dimensions are in inches [millimeters].

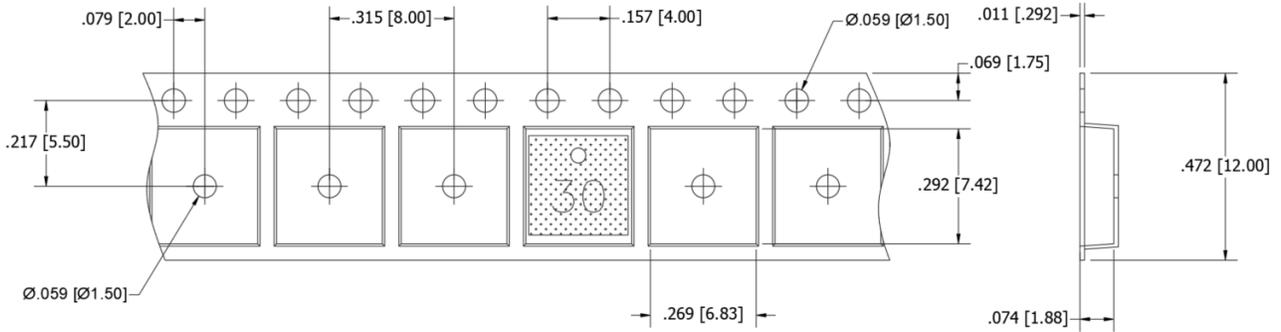
Power Derating:

XRA60CC30SES Power Derating Curve



Packaging and Ordering Information:

Parts are available in reels. Parts are oriented in tape and reel as shown below.



Dimensions are in Inches [Millimeters] Direction of Part Feed (Unloading)

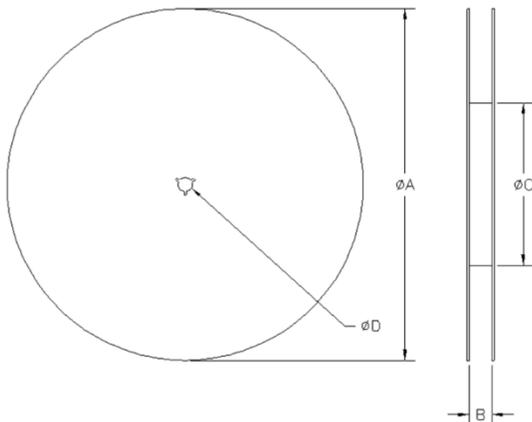


TABLE 1
REEL DIMENSIONS (mm)

| | |
|----|--------|
| ØA | 177.80 |
| B | 12.00 |
| ØC | 50.80 |
| ØD | 13.00 |

Contact us:
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