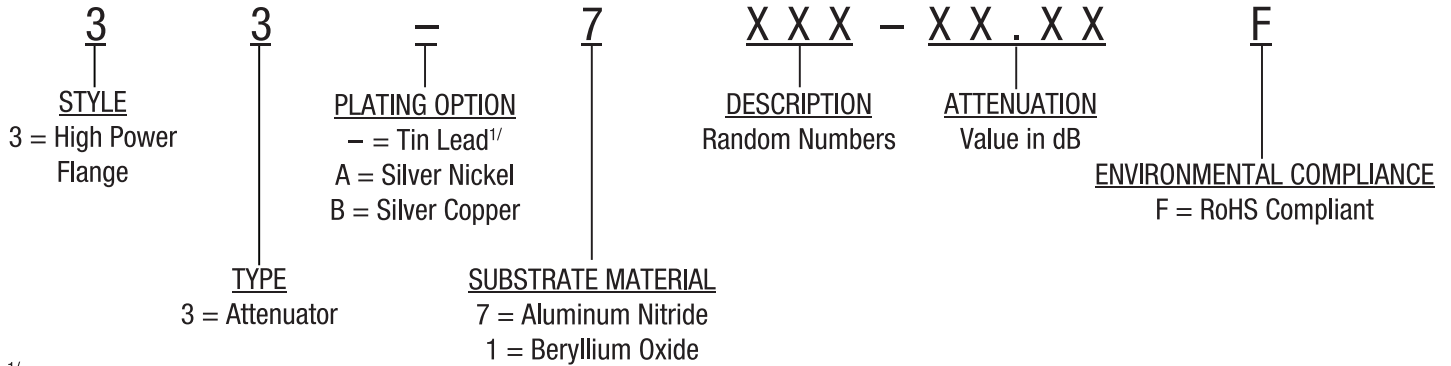




33 Series Flange

High Power Attenuator

Part Numbering Code



^{1/}Not RoHS Compliant

Product Information Table

| Power | Freq | VSWR | Substrate | L | | W | | H | | TW | | Part Number* | Figure # |
|-------|------|------|-----------|-------------|---------|-------|---------|------|---------|------|---------|--------------|----------|
| | GHz | Max | | mm [inches] | | | | | | | | | |
| 10 | 2.7 | 1.15 | AlN | 5.08 | [0.200] | 7.62 | [0.300] | 3.81 | [0.150] | 1.02 | [0.040] | 33 7003* | 1 |
| 10 | 0.9 | 1.25 | BeO | 5.08 | [0.200] | 7.62 | [0.300] | 3.81 | [0.150] | 1.02 | [0.040] | 33 1041* | 1 |
| 10 | 4.0 | 1.35 | BeO | 5.08 | [0.200] | 12.70 | [0.500] | 3.81 | [0.150] | 1.02 | [0.040] | 33 1017* | 2 |
| 10 | 4.0 | 1.35 | BeO | 5.08 | [0.200] | 7.62 | [0.300] | 3.81 | [0.150] | 1.02 | [0.040] | 33 1005* | 1 |
| 20 | 4.0 | 1.50 | BeO | 6.35 | [0.250] | 13.08 | [0.515] | 3.81 | [0.150] | 1.52 | [0.060] | 33 1001* | 3 |
| 50 | 2.5 | 1.40 | BeO | 9.53 | [0.375] | 24.77 | [0.975] | 5.33 | [0.210] | 1.52 | [0.060] | 33 1021* | 4 |
| 50 | 2.0 | 1.40 | AlN | 9.53 | [0.375] | 24.77 | [0.975] | 5.33 | [0.210] | 1.50 | [0.059] | 33 7002* /1 | 4 |
| 50 | 2.0 | 1.40 | AlN | 9.53 | [0.375] | 24.77 | [0.975] | 5.33 | [0.210] | 1.52 | [0.060] | 33 7001* /1 | 4 |
| 50 | 1.0 | 1.20 | BeO | 9.53 | [0.375] | 24.77 | [0.975] | 5.33 | [0.210] | 1.52 | [0.060] | 33 1002* | 4 |
| 75 | 2.2 | 1.20 | AlN | 9.53 | [0.375] | 22.10 | [0.870] | 3.81 | [0.150] | 1.02 | [0.040] | 33 7005* | 5 |
| 75 | 1.0 | 1.30 | BeO | 9.53 | [0.375] | 22.10 | [0.870] | 3.81 | [0.150] | 1.02 | [0.040] | 33 1009* | 5 |
| 100 | 2.5 | 1.20 | AlN | 5.84 | [0.230] | 20.32 | [0.800] | 3.81 | [0.150] | 1.02 | [0.040] | 33 7023* | 7 |
| 100 | 3.0 | 1.30 | AlN | 6.48 | [0.255] | 20.83 | [0.820] | 4.06 | [0.160] | 1.02 | [0.040] | 33 7004* | 8 |
| 100 | 0.8 | 1.25 | BeO | 12.70 | [0.500] | 31.75 | [1.250] | 5.33 | [0.210] | 1.52 | [0.060] | 33 1003* | 6 |
| 100 | 2.5 | 1.20 | AlN | 5.84 | [0.230] | 20.32 | [0.800] | 3.81 | [0.150] | 1.02 | [0.040] | 33 7023* | 7 |
| 150 | 1.0 | 1.50 | BeO | 9.53 | [0.375] | 24.77 | [0.975] | 5.33 | [0.210] | 1.52 | [0.060] | 33 1006* | 4 |
| 200 | 0.5 | 1.50 | BeO | 26.42 | [1.040] | 48.26 | [1.900] | 6.22 | [0.245] | 6.35 | [0.250] | 33 1004* | 9 |
| 250 | 1.0 | 1.25 | BeO | 12.70 | [0.500] | 31.75 | [1.250] | 5.33 | [0.210] | 1.52 | [0.060] | 33 1042* /2 | 6 |
| 250 | 1.0 | 1.25 | BeO | 12.70 | [0.500] | 31.75 | [1.250] | 5.33 | [0.210] | 1.52 | [0.060] | 33 1052* | 6 |
| 400 | 1.0 | 1.30 | BeO | 12.70 | [0.500] | 31.75 | [1.250] | 5.33 | [0.210] | 1.52 | [0.060] | 33 1050* | 10 |

* is a place holder. See part number configurations to complete the part number.

/1 only available in 20 dB

/2 only available in 30 dB

"1 min" dimension = 3.18 mm [0.125]

33 Series Flange

High Power Attenuator



Figure 1

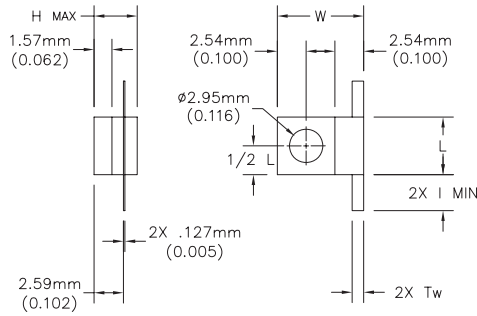
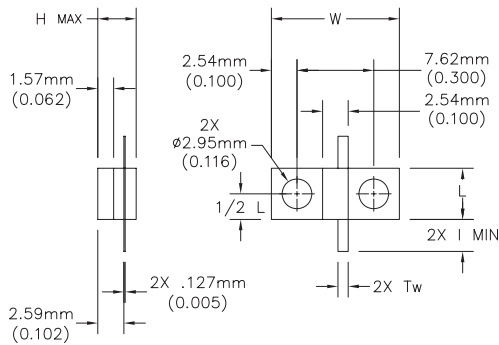


Figure 2

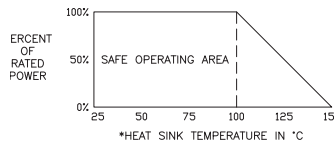


High power flange mount components offer high performance and the convenience of bolt-on installation. Flange attenuators have an attenuation range from 1 to 30 dB. Typical attenuation tolerance for values between 1-10 dB is +/- 0.5 dB and between 11-30 dB is +/- 1.0 dB (may vary for certain products, please refer to drawing). Maximum power rating of up to 400 watts can be achieved on a single device. All devices can be made RoHS compliant and available in Aluminum Nitride (AlN) or BeO.

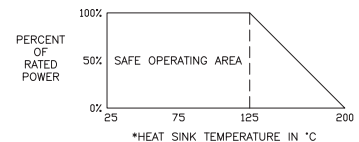
Specifications

| | |
|-----------------------|------------------------------|
| Impedance | 50 Ohms |
| Frequency Range | DC to 4 GHz |
| VSWR (Typical) | 1.30 |
| Power Rating | 10 to 400 Watts |
| Operating Temperature | -55°C to 150°C |
| Substrate | BeO or AlN |
| Resistive Material | Nichrome |
| Tab Contact | Different Finishes Available |
| Cover | Alumina |
| Flange | Copper, Nickel Plated |

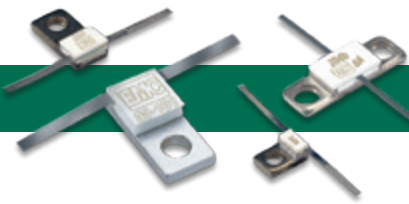
Power Rating and Derating



Alternative Derating Available Upon Request



*The heat sink is defined as the surface that the Component is attached to, ie. chassis or printed circuit board.



33 Series Flange

Mechanical Outlines

Figure 3

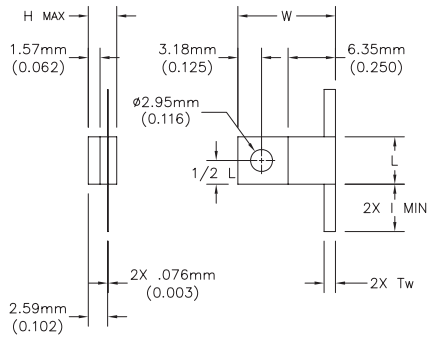


Figure 4

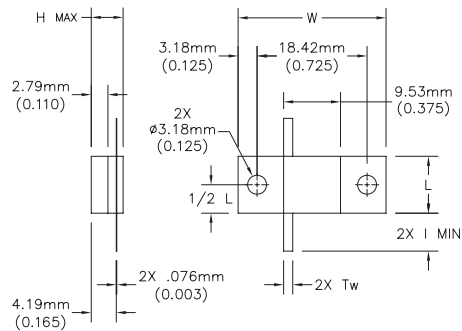


Figure 5

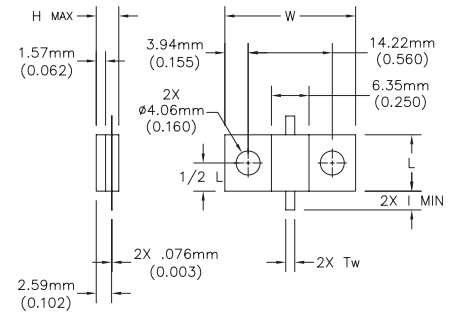


Figure 6

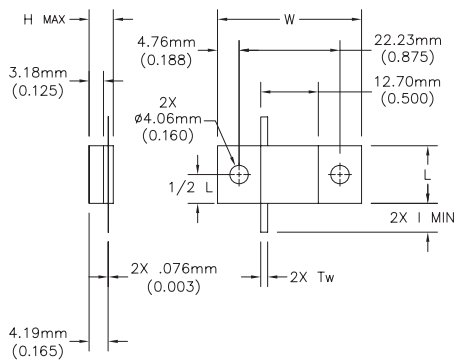


Figure 7

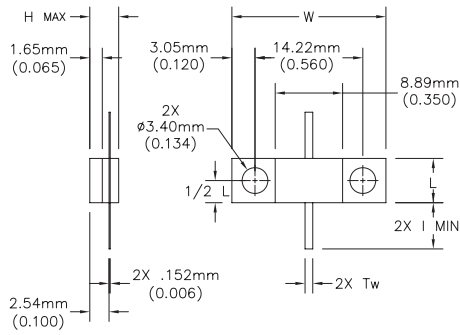


Figure 8

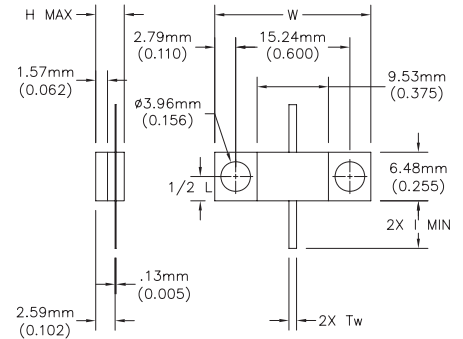


Figure 9

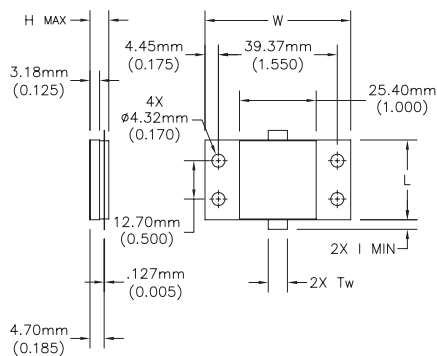


Figure 10

