

Flange

Resistor

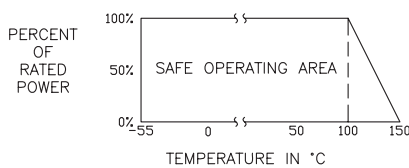


Flange resistors are excellent for mounting directly to heat sinks for improved heat dissipation. The devices are available in single, double and four hole flange mounting styles. These devices have standard resistance values of 50 & 100 ohms, however most designs are available in non-standard values as well. The flange resistors are offered in power ratings ranging from 10 to 1000 watts. Many designs are available in both BeO and Aluminum Nitride (AlN) substrates. The 31-XXXX designs, traditionally have a thin film resistor while the 5XXX designs, use a thick film resistor.

Specifications

| | |
|-----------------------|-----------------------|
| Standard Resistance | 50 & 100 Ohms ±5% |
| Resistance Range | 4 to 400 Ohms |
| Power | 10 to 800 Watts |
| Power Rating | 100% @ 100°C |
| Derates to | 0% @ 150°C |
| Operating Temperature | -55°C to 150°C |
| Substrate | BeO or AlN |
| Resistor | Thin or Thick Film |
| Tab Contact | Beryllium Copper |
| Cover | Alumina |
| Mounting Flange | Copper, Nickel Plated |

Power Rating and Derating



Part Numbering Code

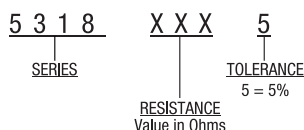
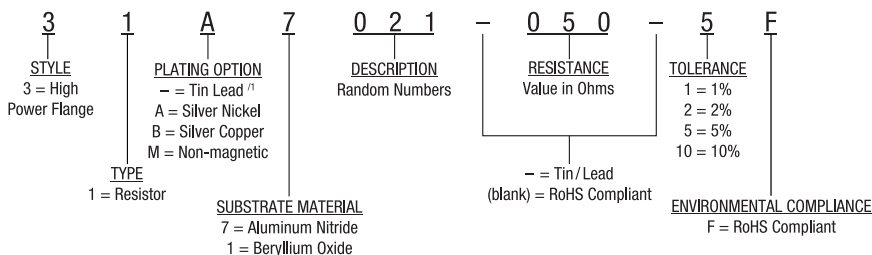


Figure 1

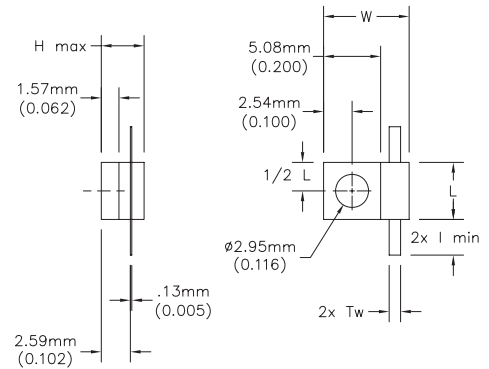


Figure 2

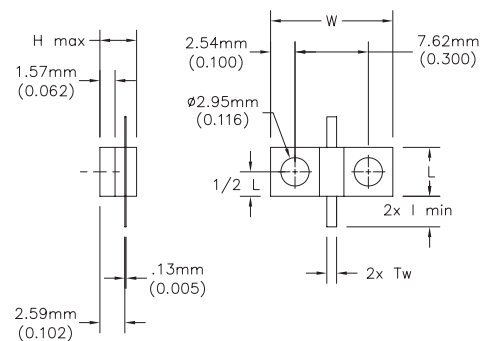


Figure 3

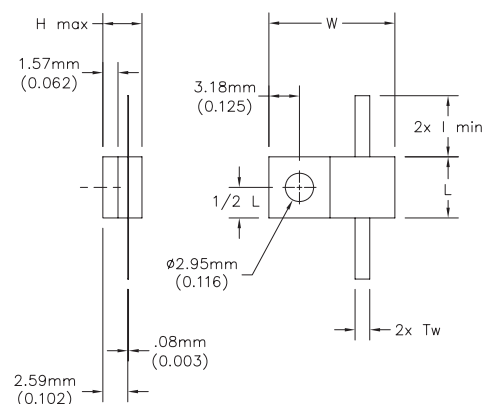




Figure 4

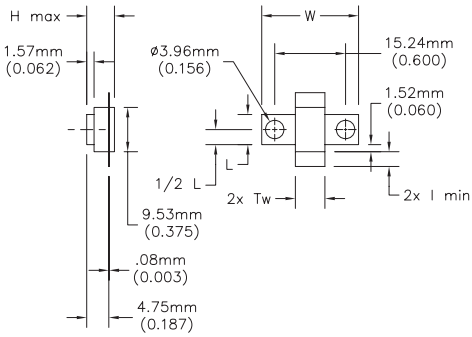


Figure 5

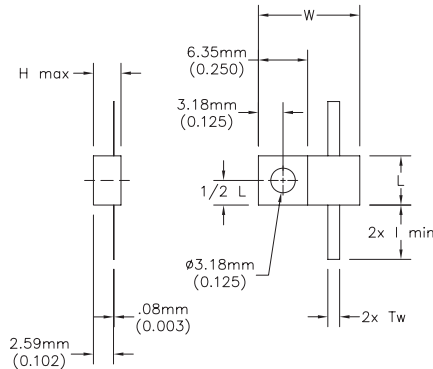


Figure 6

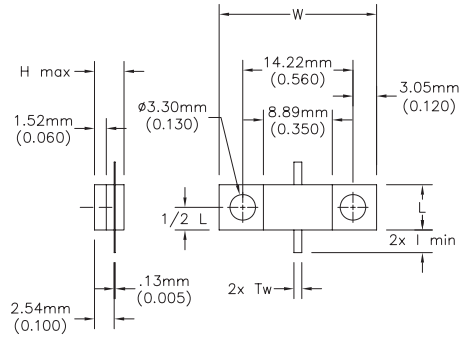


Figure 7

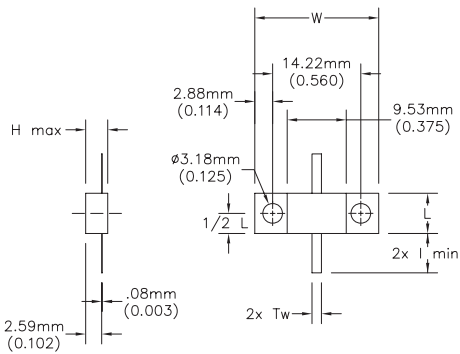


Figure 8

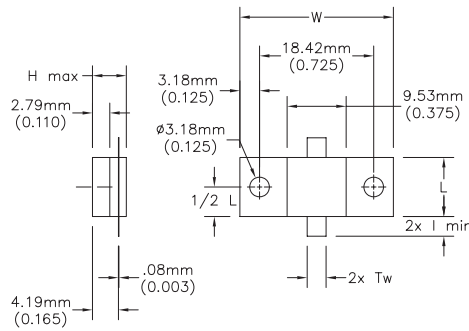


Figure 9

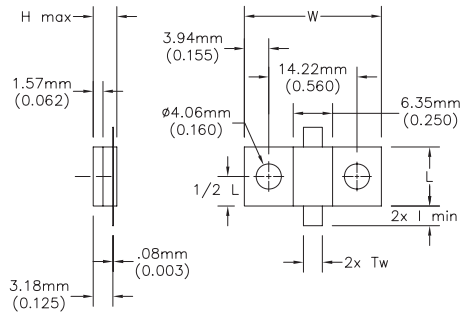


Figure 10

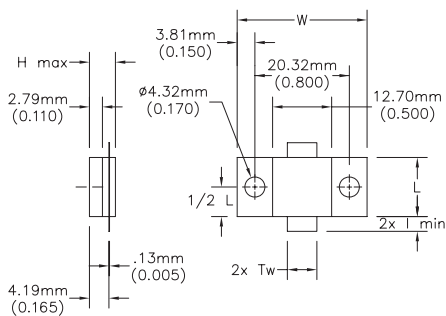


Figure 11

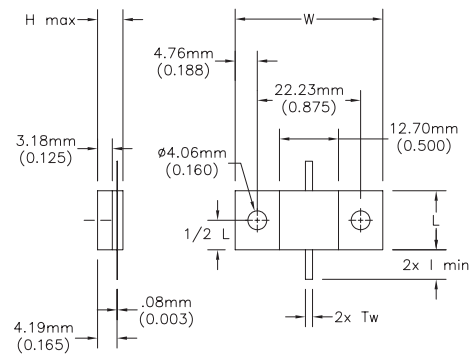
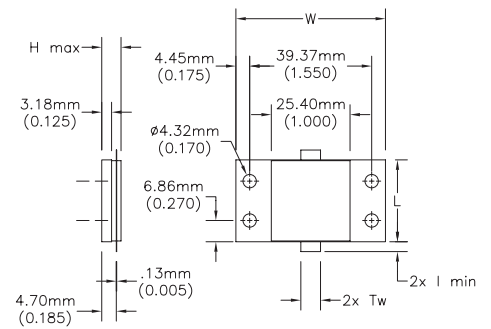


Figure 12



Flange

Product Information



| Power Watt | Resistance Range | Substrate | Capacitance | L | | W | | H | | Part Series # | Figure # |
|---------------|---------------------|-----------|-------------|-------------|---------|-------|---------|------|---------|------------------|-------------|
| | | | | mm [inches] | | | | | | | |
| 10 | 5-200 | BeO | 0.80 | 5.08 | [0.200] | 12.70 | [0.500] | 3.81 | [0.150] | 31 1008* | 2 |
| 10 | 5-200 | BeO | 0.80 | 5.08 | [0.200] | 7.62 | [0.300] | 3.81 | [0.150] | 31 1006* | 1 |
| 10 | 25-250 | BeO | 1.30 | 7.62 | [0.300] | 5.08 | [0.200] | 4.06 | [0.160] | 5318 XXX,5 | 1 |
| 20 | 10-250 | AlN | 0.80 | 5.08 | [0.200] | 12.70 | [0.500] | 3.81 | [0.150] | 31 7008* | 1 |
| 20 | 10-250 | AlN | 0.57 | 5.08 | [0.200] | 7.62 | [0.300] | 3.81 | [0.150] | 31 7006* | 1 |
| 20 | 10-400 | BeO | 0.20 | 6.35 | [0.250] | 13.08 | [0.515] | 4.32 | [0.170] | 31 1094* | 3 |
| 20 | 10-150 | BeO | 1.00 | 6.35 | [0.250] | 20.83 | [0.820] | 5.97 | [0.235] | 31 1010* | 7 |
| 20 | 3-250 | BeO | 0.60 | 6.35 | [0.250] | 13.08 | [0.515] | 4.06 | [0.160] | 31 1009* | 3 |
| 20 | 3-250 | BeO | 0.60 | 6.35 | [0.250] | 13.08 | [0.515] | 4.06 | [0.160] | 31 1001* | 3 |
| 25 | 25-250 | BeO | 2.50 | 12.70 | [0.500] | 6.48 | [0.255] | 4.32 | [0.170] | 5310 XXX,5 | 2 |
| 25 | 25-250 | BeO | 2.00 | 13.08 | [0.515] | 6.35 | [0.250] | 4.06 | [0.160] | 5326 XXX,5 | 2 |
| 30 | 10-400 | BeO | 0.50 | 6.35 | [0.250] | 13.08 | [0.515] | 3.56 | [0.140] | 31 1034* | 5 |
| 40 | 5-300 | AlN | 0.80 | 6.35 | [0.250] | 13.08 | [0.515] | 3.81 | [0.150] | 31 7108* | 3 |
| 40 | 10-250 | AlN | 0.25 | 5.84 | [0.250] | 20.32 | [0.800] | 3.81 | [0.150] | 31 7107* | 6 |
| 40 | 10-400 | BeO | 0.50 | 6.35 | [0.250] | 13.08 | [0.515] | 3.56 | [0.140] | 31 1089* | 3 |
| 40 | 9-300 | BeO | 0.50 | 5.84 | [0.230] | 20.32 | [0.800] | 3.81 | [0.150] | 31 1035* | 6 |
| 40 | 9-300 | BeO | 0.50 | 5.84 | [0.230] | 20.32 | [0.800] | 3.81 | [0.150] | 31 1007* | 6 |
| 40 | 25-250 | BeO | 3.40 | 20.32 | [0.800] | 5.84 | [0.230] | 4.06 | [0.160] | 5654 XXX,5 | 6 |
| 50 | 5-300 | AlN | 0.45 | 6.48 | [0.255] | 19.99 | [0.787] | 3.56 | [0.140] | 31 7109* | 7 |
| 60 | 5-200 | BeO | 0.70 | 6.48 | [0.255] | 19.99 | [0.787] | 3.56 | [0.140] | 31 1033* | 7 |
| 75 | 7-250 | BeO | 0.50 | 9.53 | [0.375] | 20.83 | [0.820] | 5.97 | [0.235] | 31 1002* | 4 |
| 150 | 7-1000 | BeO | 0.8 | 9.52 | [0.375] | 14.30 | [0.563] | 4.32 | [0.170] | 31 1125* | 5 |
| 150 | 7-250 | AlN | 2.25 | 9.53 | [0.375] | 22.10 | [0.870] | 4.32 | [0.170] | 31 7021* | 9 |
| 150 | 12-400 | BeO | 0.50 | 9.53 | [0.375] | 22.10 | [0.870] | 4.32 | [0.170] | 31 1075* | 9 |
| 150 | 7-1000 | BeO | 0.80 | 9.53 | [0.375] | 22.10 | [0.870] | 4.32 | [0.170] | 31 1021 | 9 |
| 150 | 7-250 | BeO | 1.33 | 9.53 | [0.375] | 22.10 | [0.870] | 3.81 | [0.150] | 31 1003* | 9 |
| 150 | 5-600 | BeO | /1 | 5.84 | [0.230] | 20.32 | [0.800] | 3.81 | [0.150] | 31 1086* | 9 |
| 150 | 25-250 | BeO | 3.80 | 22.23 | [0.875] | 9.53 | [0.375] | 4.32 | [0.170] | 5308 XXX,5 | 9 |
| 200 | 10-350 | AlN | 1.40 | 9.53 | [0.375] | 24.77 | [0.975] | 5.46 | [0.215] | 31 7110* | 8 |
| 250 | 10-350 | BeO | 1.00 | 9.53 | [0.375] | 24.77 | [0.975] | 5.46 | [0.215] | 31 1098* | 8 / 2 |
| 250 | 10-350 | BeO | 1.00 | 9.53 | [0.375] | 24.77 | [0.975] | 5.46 | [0.215] | 31 1076* | 8 |
| 250 | 5-150 | BeO | 2.00 | 24.77 | [0.975] | 9.53 | [0.375] | 7.11 | [0.280] | 31 1059 | 8 |
| 250 | 5-250 | BeO | 1.64 | 9.53 | [0.375] | 24.77 | [0.975] | 5.46 | [0.215] | 31 1004* | 8 |
| 250 | 25-250 | BeO | 4.30 | 24.77 | [0.975] | 9.53 | [0.375] | 5.21 | [0.205] | 5660 XXX,5 | 8 |
| 400 | 5-200 | BeO | 3.25 | 12.70 | [0.500] | 27.94 | [1.100] | 5.59 | [0.220] | 31 1074* | 10 |
| 500 | 10-400 | BeO | 1.50 | 12.70 | [0.500] | 31.75 | [1.250] | 5.46 | [0.215] | 31 1123* | 11 |
| 750 | 10-400 | BeO | 4.50 | 26.42 | [1.040] | 48.26 | [1.900] | 6.35 | [0.250] | 31 1054* | 12 |
| 800 | 12-400 | BeO | 4.48 | 26.42 | [1.040] | 48.26 | [1.900] | 6.22 | [0.245] | 31 1005* | 12 |
| 800 | 7-175 | BeO | 1.00 | 26.42 | [1.040] | 48.26 | [1.900] | 6.22 | [0.245] | 31 1099* | 12 |

/1 Varies by resistance value within the range. Call the Sales department for more information.

/2 Formed Tabs