

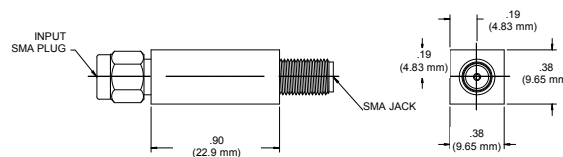
Features

- Broadband Frequency Ranges
- Environmentally Sealed
- Feedback Leveling
- Small Size
- Reduced VSWR

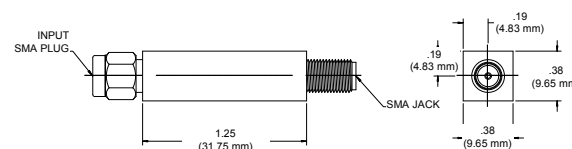
Description

series 2690 standard limiter is a line of completely passive solid state receiver protectors. They exhibit octave and multi-octave performance using a unique construction technique involving PIN diodes in broadband micro strip circuits. Careful diode selection allows a variety of device performance, trading off peak and average power handling, spike leakage and recovery time. Typical insertion loss and VSWR curves are shown below.

Outline 1



Outline 2



Electrical Specifications: $T_A = 25^\circ\text{C}$

| Part Number | Frequency Range (GHz) | Insertion Loss (dB) | VSWR | Average Power (W) | Peak Power (W) | Recovery Time (nS) | Leakage Power (mW) | Outline Drawing |
|-------------|-----------------------|---------------------|-------|-------------------|----------------|--------------------|--------------------|-----------------|
| 2690-1001 | 1.0 - 2.0 | 0.7 | 1.5:1 | 1.0 | 100 | 100 | 75 | 1 |
| 2690-1003 | | 0.9 | 1.5:1 | 3.0 | 1000 | 1000 | 100 | 2 |
| 2690-1005 | 2.0 - 8.0 | 1.1 | 1.6:1 | 1.0 | 100 | 100 | 50 | 1 |
| 2690-1007 | | 1.3 | 1.6:1 | 3.0 | 1000 | 1000 | 100 | 2 |
| 2690-1009 | 8.0 - 18.0 | 1.8 | 2.0:1 | 1.0 | 100 | 100 | 50 | 1 |
| 2690-1011 | | 2.3 | 2.0:1 | 3.0 | 1000 | 1000 | 100 | 2 |
| 2690-1013 | 2.0 - 18.0 | 2.0 | 2.0:1 | 1.0 | 100 | 100 | 50 | 1 |
| 2690-1014 | | 2.2 | 2.0:1 | 2.0 | 500 | 250 | 75 | 1 |
| 2690-1015 | | 2.3 | 2.0:1 | 3.0 | 1000 | 1000 | 100 | 2 |

1. Insertion Loss and VSWR measured at 0 dBm input power.
2. Peak input power rated at 1 microsecond pulse width, 1% duty into 1.5:1 source VSWR and 1.15 load VSWR.
3. Spike leakage energy: 0.5 ergs max.
4. 1 dB compression: +7 dBm min.

Environmental

| Test | MIL-STD | Method | Cond |
|---------------------------|---------|--------|-------------|
| Non-Destructive Bond Pull | 883 | 2023 | — |
| Internal Visual | 883 | 2017 | — |
| Stabilization Bake | 883 | 1008 | B |
| Thermal Cycle | 883 | 1010 | B |
| Constant Acceleration | 883 | 2001 | A (Y1 Axis) |
| Burn-In | 883 | 1015 | 125°C |
| Seal Fine | 883 | 1014 | A1 |
| Seal Gross | 883 | 1014 | C1 |
| External Visual | 883 | 2009 | — |

Devices are designed to meet the above screening conditions.

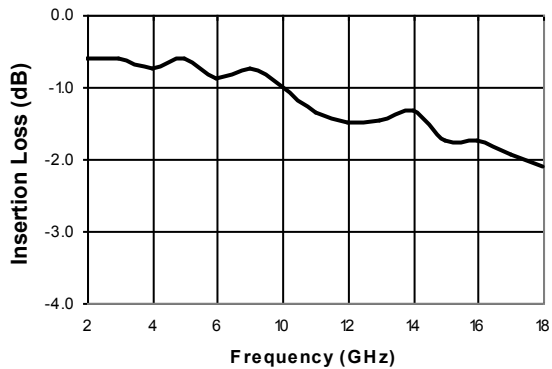
Absolute Maximum Ratings ⁵

| Parameter | Absolute Maximum |
|-----------------------|------------------|
| Operating Temperature | -55°C to +85°C |
| Storage Temperature | -65°C to +125°C |

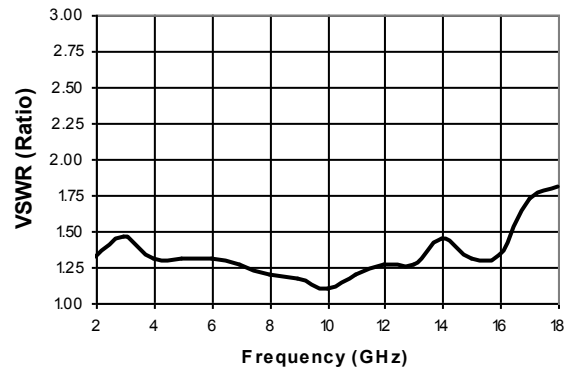
5. Operation of this device above any one of these parameters may cause permanent damage.

Typical Performance Curves

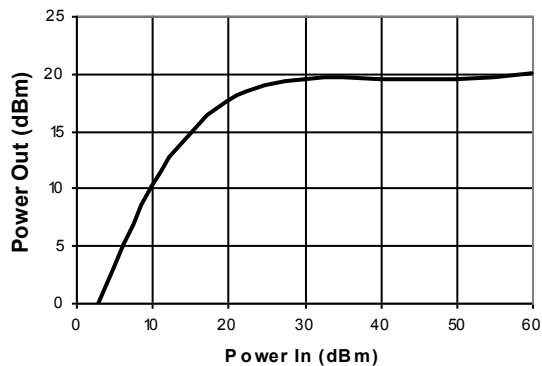
Insertion Loss



VSWR



Leakage Power at 100 mW



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