2690 Series

Coaxial Limiters

Rev. V4

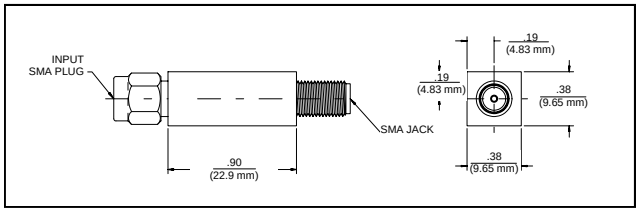
Features

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

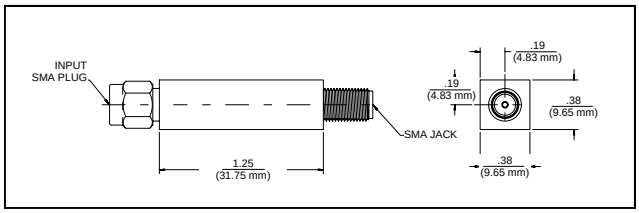
Description

M/A-COM's standard limiter series 2690 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 microstrip 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°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.

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PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

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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 Gross	883 883	1014 1014	A1 C1
External Visual	883	2009	—

Devices are designed to meet the above screening conditions.

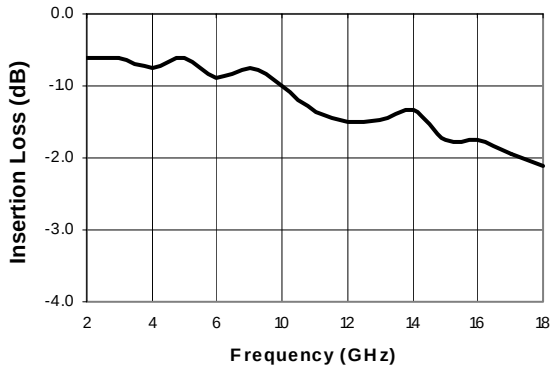
Absolute Maximum Ratings [5]

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

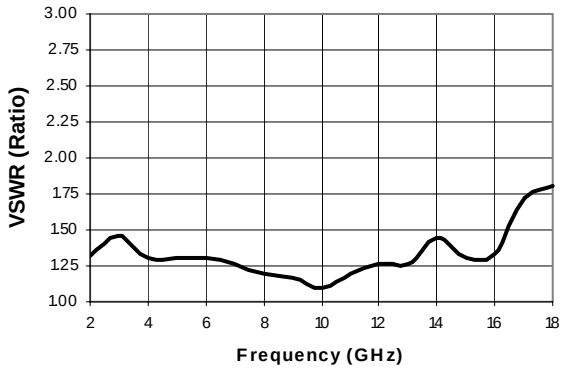
5. Operation of this device above any one of these parameters may cause permanent damage.

Typical Performance Curves

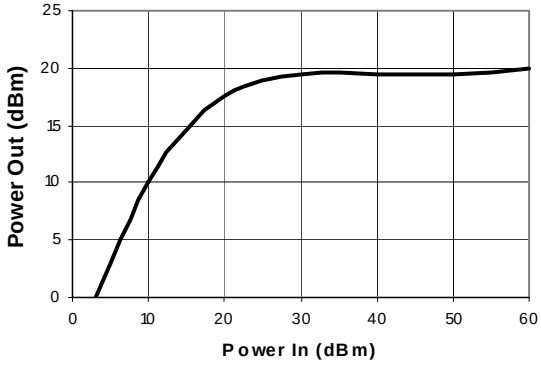
Insertion Loss



VSWR



Leakage Power at 100 mW



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