GG77010 – GG77315

Features

- High Performance
- Module and Connectorized
- Broadband Design
- Low Leakage Modules Available

Description

Microsemi's Limiters are available as drop in modules or as connectorized assemblies. These products are designed for broadband limiting applications with selected 'low leakage' limiters for more sensitive receiver protection. Microsemi can also supply custom limiter designs including integrated assemblies such as, switch / limiter modules.

Applications

- Receiver Protection
- Amplifier Protection

MECHANICAL NOTES

1. All pins are 0.12 ±0.001"dia. By 0.100" (min) long. May be supplied with tabs, 0.025 ±0.01" by 0.006 ±0.002" upon request.
2. Tolerance on 3 place decimals is ±0.003" unless specified.
3. Case and leads are gold plated per MIL-G-45204, Type 3, Grade A, 50µinch (min).

ENVIRONMENTAL

These units are designed to meet the following environmental conditions.

MODULES				CONNECTORIZED ASSEMBLIES			
TEST	**MIL-PRF**	**METHOD**	**COND**	**TEST**	**MIL-PRF**	**METHOD**	**COND**
Internal Visual	883	2017		Internal Visual	883	2017	
Stabilization Bake	883	1008	B	Stabilization Bake	883	1008	B
Thermal Cycle	883	1010	B	Thermal Cycle	883	1010	B
Constant Acceleration	883	2001	A (Y Axis)	Constant Acceleration	883	2001	A (Y Axis)
Fine Leak Gross Leak	883	1014 1014	A1 C1	Humidity	202B	103B	B1
External Visual	883	2009		External Visual	883	2009	

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STANDARD BROADBAND LIMITER MODULES

FREQUENCY RANGE (GHz)	INSERTION LOSS (dB MAX)	VSWR (MAX)	SURVIVAL PEAK	POWER (WATTS) CW	FLAT LEAKAGE (mW MAX)	MODEL NUMBER	PACKAGE STYLE
.5 to 4.0	0.5	1.5:1	100	3.0	400	GG77012-01	210013
	0.7	1.5:1	200	3.0	200	GG77010-01	210001
	0.7	1.5:1	200	3.0	125	GG77011-01	210003
	0.8	1.5:1	1000	5.0	200	GG77013-01	210003
2.0 to 8.0	0.6	1.7:1	100	2.0	500	GG77012-02	210013
	0.7	1.7:1	200	2.0	125	GG77010-02	210001
	0.7	1.7:1	200	2.0	100	GG77011-02	210003
	1.2	1.7:1	1000	3.0	200	GG77013-02	210003
4.0 to 12.0	1.0	1.8:1	200	2.0	100	GG77010-03	210001
	1.0	1.8:1	200	2.0	60	GG77011-03	210003
	1.6	1.8:1	800	3.0	200	GG77013-03	210003
8.0 to 18.0	1.9	1.9:1	200	2.0	100	GG77010-04	210001
	1.9	1.9:1	200	2.0	60	GG77011-04	210003
	2.2	2.0:1	600	3.0	200	GG77013-04	210003
2.0 to 18.0	2.0	2.0:1	200	2.0	125	GG77010-05	210001
	2.0	2.0:1	200	2.0	100	GG77011-05	210003
	2.2	2.0:1	600	3.0	200	GG77013-05	210003

LOW LEAKAGE BROADBAND LIMITER MODULES

2.0 to 8.0	1.4	1.8:1	10	1	20	GG77014-01	210003
4.0 to 12.4	1.9	2.0:1	10	1	20	GG77014-02	210003
8.0 to 18.0	2.2	2.0:1	10	1	35	GG77014-03	210003

Notes:
1. All low level parameters specified at -10 dBm input power.
2. All Limiter Modules require an external D.C. return of 1.0 ohm or less except the GG77014-XX series which require external D.C. blocks at both ends.
3. Peak power ratings apply @ 1.0µsec pulse width and 0.001 duty cycle.
4. Spike leakage is 0.2 ergs (max) based on the assumption that the pulse rise time of the high power pulse is greater that 20.0nsec. Spike leakage for the Low Frequency Limiters is not specified.
5. Recovery Time (3 dB) for all units except for the GG77014-XX, GG77314-XX and GG77315-XX series is 250nSec @ 100W pulsed input power. Series GG77314-XX and GG77014-XX recovers in 500nSec. at rated pulsed power and Series GG77315-XX recovers in 1.0µSec at rated pulsed power.
6. Limiting threshold (1 dB compression point) is 5mW (min) except for the GG77314-XX series which is 1.0mW (min).
7. Leakage levels are specified at rated peak power.

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STANDARD BROADBAND CONNECTORIZED LIMITERS

FREQUENCY RANGE (GHz)	INSERTION LOSS (dB MAX)	VSWR (MAX)	SURVIVAL PEAK	POWER (WATTS) CW	FLAT LEAKAGE (mW -MAX)	MODEL NUMBER	PACKAGE STYLE
.5 to 4.0	0.6	1.5:1	200	3.0	200	GG77310-01	210019
	0.7	1.5:1	200	3.0	100	GG77311-01	210019
	0.9	1.5:1	1000	5.0	200	GG77313-01	210019
2.0 to 8.0	1.0	1.7:1	200	2.0	125	GG77310-02	210019
	1.0	1.7:1	200	2.0	100	GG77311-02	210019
	1.5	1.7:1	1000	3.0	200	GG77313-02	210019
4.0 to 12.0	1.5	1.8:1	200	2.0	100	GG77310-03	210019
	1.5	1.8:1	200	2.0	60	GG77311-03	210019
	2.1	1.8:1	800	3.0	200	GG77313-03	210019
8.0 to 18.0	2.2	1.9:1	200	2.0	100	GG77310-04	210019
	2.5	1.9:1	200	2.0	60	GG77311-04	210019
	2.5	2.0:1	600	3.0	200	GG77313-04	210019
2.0 to 18.0	2.2	2.0:1	200	2.0	125	GG77310-05	210019
	2.5	2.0:1	200	2.0	100	GG77311-05	210019
	2.5	2.0:1	600	3.0	200	GG77313-05	210019

LOW LEAKAGE CONNECTORIZED LIMITERS

2.0 to 8.0	1.4	1.8:1	10.0	1.0	20.0	GG77314-04	210019
4.0 to 12.4	2.0	2.0:1	10.0	1.0	20.0	GG77314-05	210019
8.0 to 18.0	2.5	2.0:1	10.0	1.0	35.0	GG77314-06	210019
2.0 to 8.0	1.4	1.8:1	10.0	1.0	20.0	GG77314-07	210032
4.0 to 12.4	2.0	2.0:1	10.0	1.0	20.0	GG77314-08	210032
8.0 to 18.0	2.5	2.0:1	10.0	1.0	35.0	GG77314-09	210032

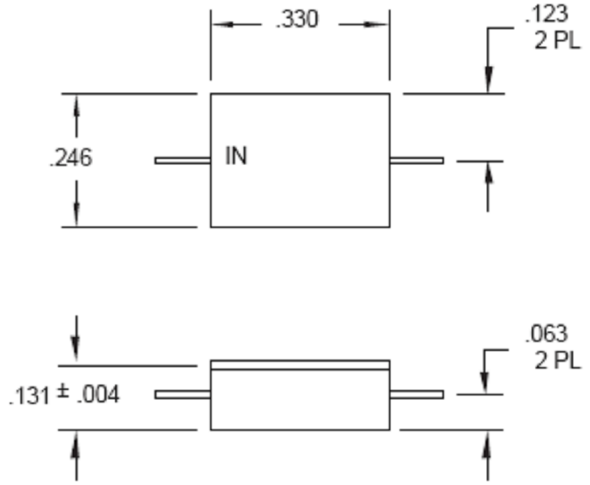
LOW FREQUENCY CONNECTORIZED LIMITERS

0.01 to 0.1	0.7	1.5:1	100	1.0	200	GG77315-01	210019
0.1 to 0.5	0.7	1.5:1	100	1.0	200	GG77315-02	210019
0.5 to 1.0	1.0	1.5:1	100	1.0	200	GG77315-03	210019
0.01 to 0.1	0.7	1.5:1	100	1.0	200	GG77315-04	210093
0.1 to 0.5	0.7	1.5:1	100	1.0	200	GG77315-05	210093
0.5 to 1.0	1.0	1.5:1	100	1.0	200	GG77315-06	210093

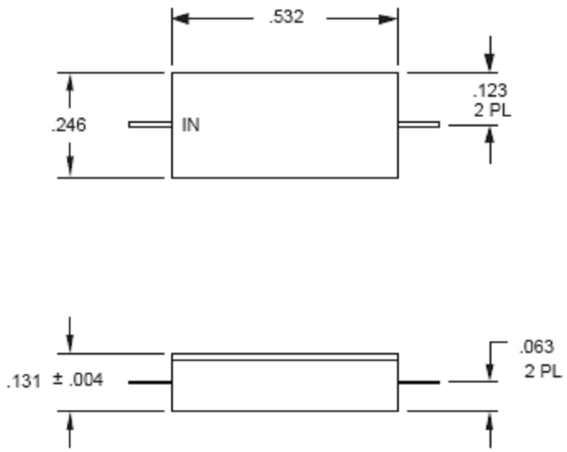
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STANDARD MECHANICAL OUTLINES

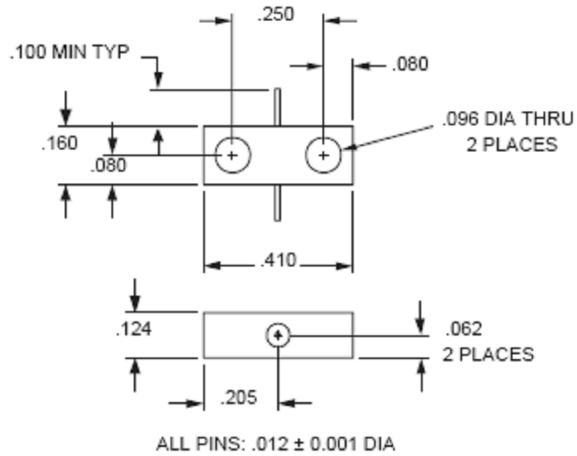
210001 OUTLINE



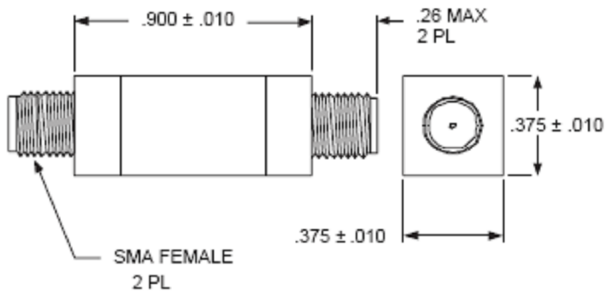
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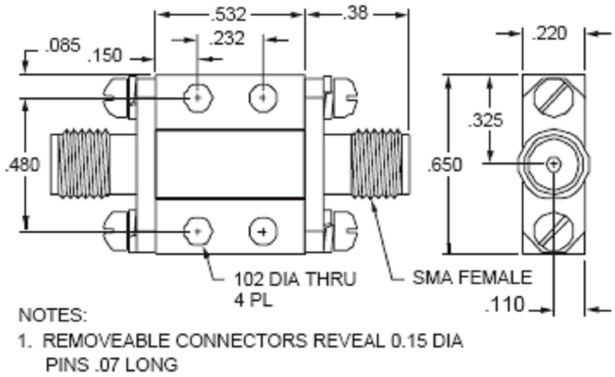
210013 OUTLINE



210019 OUTLINE

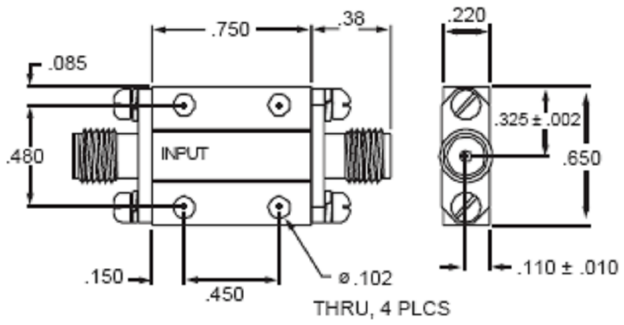


210032 OUTLINE



NOTES:
1. REMOVEABLE CONNECTORS REVEAL 0.15 DIA PINS .07 LONG

210093 OUTLINE



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