

# Limiter

50Ω Broadband 100 to 2500 MHz

## ZFLM-252-1WL-S+



CASE STYLE: H16

Connectors Model  
**SMA** ZFLM-252-1WL-S+  
**BRACKET (OPTION "B")**

**+RoHS Compliant**

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

### Maximum Ratings

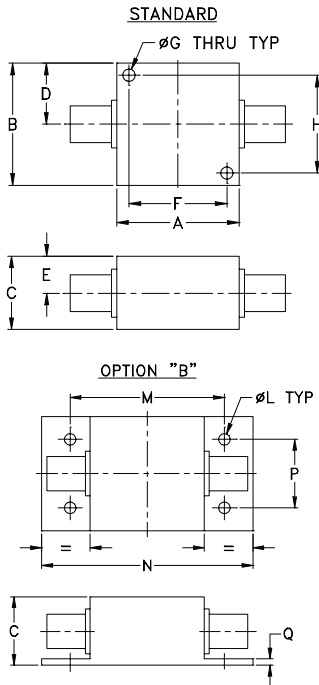
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Input Power	1.5W

Permanent damage may occur if any of these limits are exceeded.

### Coaxial Connections

INPUT	SMA female
OUTPUT	SMA male

### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H
1.25	1.25	.75	.63	.38	1.000	.125	1.000
31.75	31.75	19.05	16.00	9.65	25.40	3.18	25.40
J	K	L	M	N	P	Q	wt
--	--	.125	1.688	2.18	.750	.06	grams
--	--	3.18	42.88	55.37	19.05	1.52	70.0

### Features

- low insertion loss, 0.7 dB typ.
- very low output power 0 dBm typ. at 30 dBm input
- low cost

### Applications

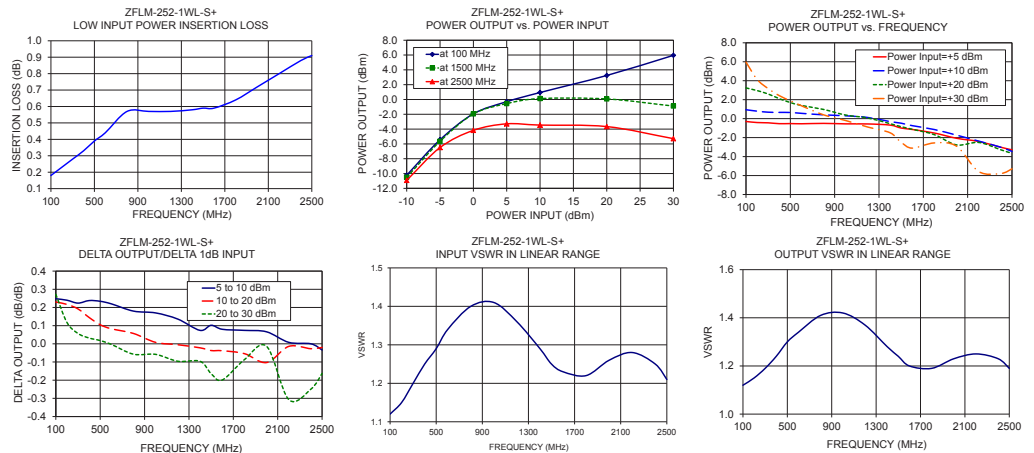
- stabilizing generator outputs
- reducing amplitude variations
- protects low noise amplifiers and other devices from ESD or input power damage

### Electrical Specifications

Parameter	Condition	Min.	Typ.	Max.	Units
<b>Frequency Range</b>		100	—	2500	MHz
<b>Linear Range</b>					
Max Input Power	<0.1 dB compression	—	—	-10	dBm
Insertion Loss	<-10 dBm	—	0.7	1.4	dB
VSWR	<-10 dBm	—	1.35	1.6	:1
<b>Limiting Range</b>					
Input Power	>1dB compression filtered signal frequency	+5	—	+30	dBm
Output Power		—	0	—	dBm
Δ Output/1dB Δ Input	Input Power Range (dBm) 5 to 10 10 to 20 20 to 30	—	0.1 0.05 0.1	—	dB/dB
Recovery Time	1 watt pulse 50 μsec pw 1kHz duty cycle recovery to within 90% of final value	—	8	—	nsec
Response Time	-30 to +30 dBm input 50 μsec PW 1 kHz duty cycle	—	2	—	nsec

### Typical Performance Data

Freq. (MHz)	I. Loss in Linear Range (dB)	VSWR in Linear Range (:1)	Power Output (dBm)				Δ Output / 1dB Δ Input		
			+5 dBm Input	+10 dBm Input	+20 dBm Input	+30 dBm Input	+5 to +10 dBm Input	+10 to +20 dBm Input	+20 to +30 dBm Input
100.00	0.18	1.12	-0.30	0.94	3.24	5.96	0.25	0.23	0.27
200.00	0.23	1.15	-0.41	0.79	2.96	4.14	0.24	0.22	0.12
300.00	0.28	1.20	-0.44	0.68	2.60	3.17	0.22	0.19	0.06
400.00	0.33	1.25	-0.53	0.66	2.11	2.43	0.24	0.15	0.03
500.00	0.39	1.29	-0.52	0.65	1.70	1.88	0.23	0.11	0.02
600.00	0.44	1.34	-0.54	0.56	1.39	1.36	0.22	0.08	0.00
800.00	0.57	1.40	-0.50	0.40	0.97	0.40	0.18	0.06	-0.06
1000.00	0.57	1.41	-0.55	0.30	0.38	-0.20	0.17	0.01	-0.06
1200.00	0.57	1.36	-0.56	0.12	0.07	-0.89	0.14	-0.01	-0.10
1400.00	0.58	1.29	-0.68	-0.31	-0.53	-1.49	0.07	-0.02	-0.10
1500.00	0.59	1.25	-0.99	-0.48	-0.85	-2.49	0.10	-0.04	-0.16
1600.00	0.59	1.23	-1.14	-0.74	-1.12	-3.11	0.08	-0.04	-0.20
1800.00	0.64	1.22	-1.52	-1.15	-1.69	-2.56	0.07	-0.05	-0.09
2000.00	0.72	1.26	-2.07	-1.74	-2.77	-2.91	0.07	-0.10	-0.01
2200.00	0.80	1.28	-2.41	-2.37	-2.51	-5.58	0.01	-0.01	-0.31
2400.00	0.88	1.25	-3.02	-3.02	-3.29	-5.78	0.00	-0.03	-0.25
2500.00	0.91	1.21	-3.29	-3.46	-3.66	-5.29	-0.03	-0.02	-0.16



**Notes**

- Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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