

+12 to +33 dBm

# Limiter

**RLM-33-2W+**

50Ω Broadband 0.2 to 3000 MHz

## Maximum Ratings

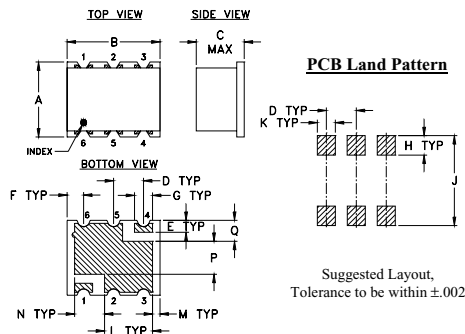
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Input Power	2.5W

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

## Pin Connections

INPUT	1
OUTPUT	4
GROUND	2,3,5,6

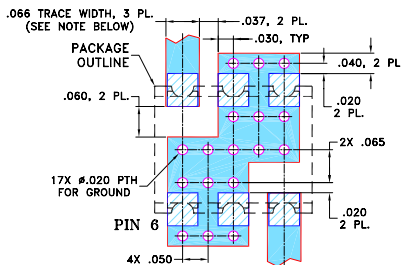
## Outline Drawing



## Outline Dimensions (inch/mm)

A	B	C	D	E	F	G	H	
.25	.31	.16	.100	.040	.055	.060	.065	
6.35	7.87	4.06	2.54	1.02	1.40	1.52	1.65	
J	K	L	M	N	P	Q	wt.	
.300	.060	.160	.025	.100	.110	.070	grams	
7.62	1.52	4.06	0.64	2.54	2.79	1.78	0.16	

## Demo Board MCL P/N: TB-393 Suggested PCB Layout (PL-258)



## Features

- wideband, 0.2 to 3000 MHz
- low insertion loss 0.25 dB typ.
- good recovery time, 22.5nsec typ.
- excellent VSWR 1.33:1 typ.
- low output power, 13 dBm typ.

## Applications

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



CASE STYLE: TT1224

## +RoHS Compliant

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

## Electrical Specifications

Parameter	Condition	Min.	Typ.	Max.	Units
Frequency Range		0.2		3000	MHz
<b>Linear Range</b>					
Max Input Power	less than 1 dB compression	—	—	5	dBm
Insertion Loss	less than -10 dBm input power	—	0.25	0.9	dB
VSWR	less than -10 dBm input power	—	1.33	1.5	:1
<b>Limiting Range</b>					
Input Power	>1dB compression filtered signal frequency	+12	—	+33	dBm
Output Power		—	+13	—	dBm
$\Delta$ Output/ $\Delta$ 1dB Input	Input Power Range (dBm)				
	12 to 20	—	0.3	—	
	20 to 25	—	0.1	—	dB/dB
	25 to 30	—	0.1	—	
	30 to 33	—	0.2	—	
Recovery Time	1 watt pulse 50 $\mu$ sec pw 1kHz duty cycle recovery to within 90% of final value @ 33 dBm	—	22.5	—	nsec
Response Time	33 dBm input 50 $\mu$ sec PW 1 kHz duty cycle	—	5.6	—	nsec

## Typical Performance Data

Freq. (MHz)	I. Loss (dB) in Linear Range at -10 dBm	VSWR (:1) in Linear Range at -10 dBm	Power Output (dBm)					$\Delta$ Output / $\Delta$ 1dB Input			
			+12 dBm Input	+20 dBm Input	+25 dBm Input	+30 dBm Input	+33dBm Input	+12 to +20 dBm Input	+20 to +25 dBm Input	+25 to +30 dBm Input	+30 to +33 dBm Input
0.20	0.11	1.35	9.45	9.72	10.42	13.09	13.53	0.03	0.14	0.53	0.15
0.50	0.03	1.12	9.55	9.91	10.60	13.33	13.94	0.04	0.14	0.55	0.20
1.00	0.02	1.06	9.57	9.95	10.64	13.36	14.00	0.05	0.14	0.54	0.21
5.00	0.02	1.01	9.86	9.93	10.56	13.15	13.74	0.01	0.13	0.52	0.20
10.00	0.02	1.01	9.93	9.80	10.30	12.66	13.21	-0.02	0.10	0.47	0.18
50.00	0.05	1.01	9.86	8.85	9.17	11.30	11.57	-0.13	0.06	0.43	0.09
100.00	0.07	1.01	9.72	8.78	9.20	11.45	12.08	-0.12	0.08	0.45	0.21
700.00	0.19	1.08	8.79	10.83	12.18	12.26	12.21	0.26	0.27	0.02	-0.02
1700.00	0.36	1.20	8.57	10.78	8.06	11.17	13.74	0.28	-0.54	0.62	0.86
2200.00	0.43	1.17	8.49	9.90	9.83	10.60	12.80	0.18	-0.01	0.15	0.73
3000.00	0.55	1.16	8.40	4.47	6.64	12.06	14.61	-0.49	0.43	1.08	0.85

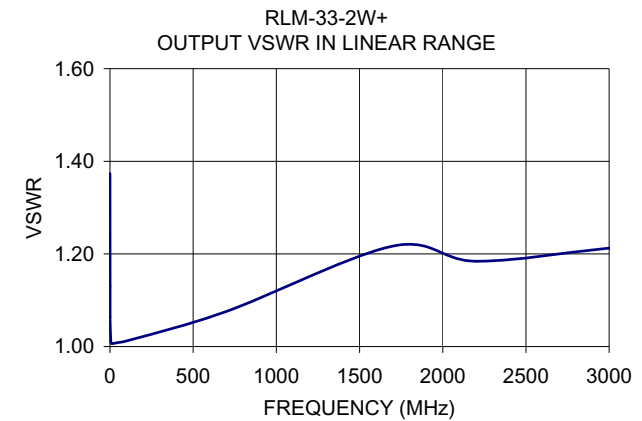
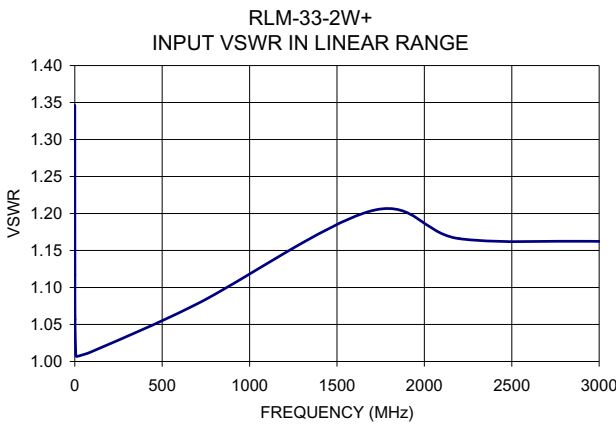
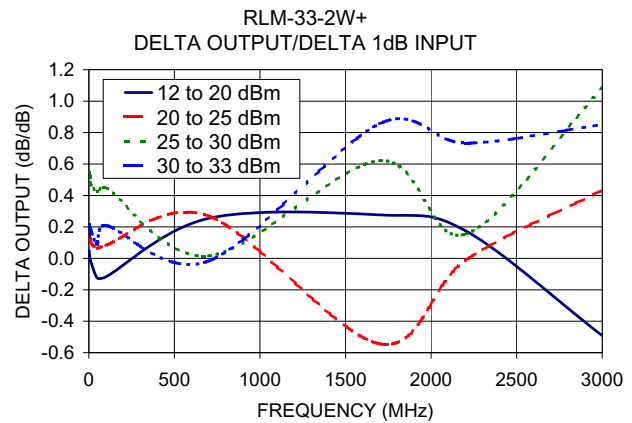
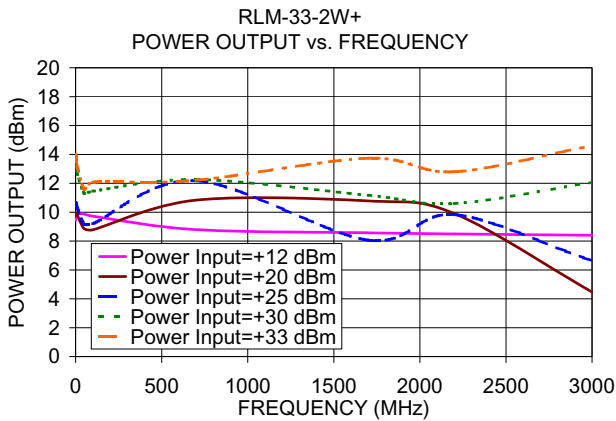
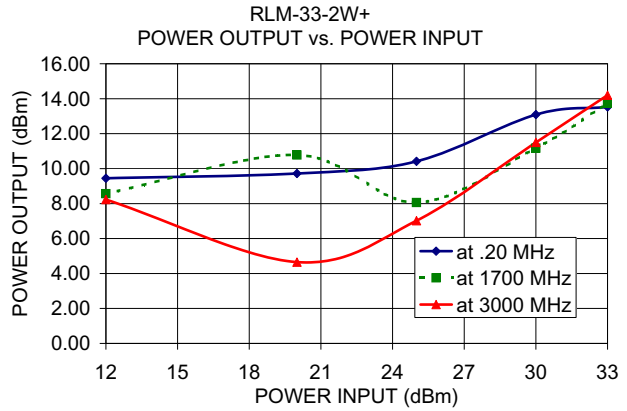
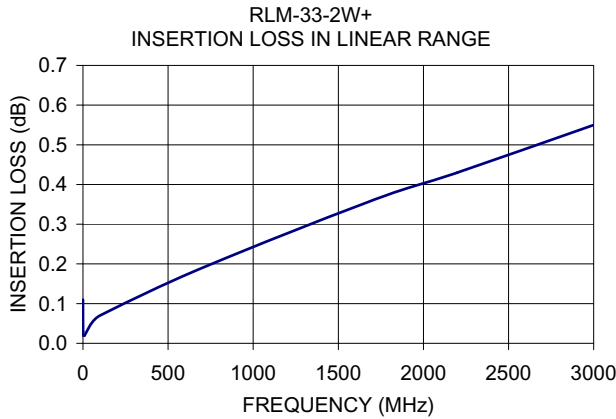
### Notes

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[www.minicircuits.com](http://www.minicircuits.com) P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 sales@minicircuits.com

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