

# DIODE LIMITER

0.1-18 GHz

# SERIES LT

## GENERAL INFORMATION

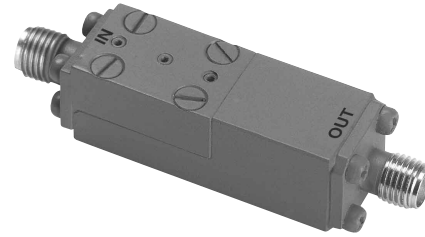
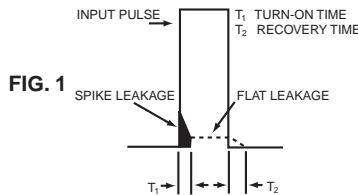
The LT series high speed Diode Limiters (receiver protectors) are used at the input of sensitive receivers in order to protect them against accidental burnout caused by high levels of CW or pulsed power. Most models are built in "air free" solid dielectric stripline, and can therefore handle high values of high power.

## GENERAL SPECIFICATIONS

<b>Frequency Range:</b>	0.1 to 18.0 GHz
<b>RF Impedance:</b>	50 Ohms
<b>Environment:</b>	MIL-E-5400
<b>Operating Temperature:</b>	-55 °C to +85 °C
<b>Connectors:</b>	SMA

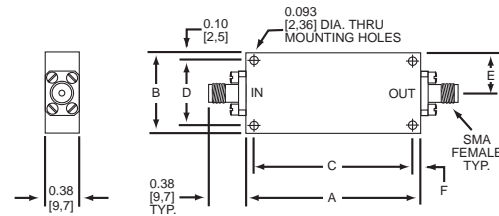
### Notes:

- See Figure 1 for limited definition.
- Limiters having higher peak and average power capacity can be supplied.
- Peak power specified is for 10 μs pulse width for frequencies to 2 GHz and 1 μs for frequencies above 2 GHz.
- If a narrow frequency bandwidth is required KDI can supply a unit that is electrically optimized for that bandwidth. Mechanical dimensions will remain the same as the standard unit, and the price will generally be lower. Specify the frequency range when ordering a narrow bandwidth model and a special part number will be assigned.
- To insure full limiting the applied RF power should exceed 100 watts peak or 30% of the maximum peak power rating.



## MECHANICAL OUTLINES

Outline	A in [mm]	B in [mm]	C in [mm]	D in [mm]	E in [mm]	F in [mm]
1	3.00[76,2]	2.00[50,8]	2.600[66,04]	1.800[45,7]	0.50[12,7]	0.20[5,1]
2	0.80[20,3]	0.60[15,2]	—	0.400[10,2]	0.30[7,6]	0.40[10,2]
3	0.95[24,13]	0.75[19,1]	—	0.500[12,7]	0.50[12,7]	0.48[12,2]
4	0.80[20,3]	0.60[15,2]	—	0.400[10,2]	0.25[6,4]	0.40[10,2]
5	2.00[50,8]	1.38[35,0]	1.600[40,64]	1.175[29,85]	0.50[12,7]	0.20[5,1]



## ELECTRICAL PERFORMANCE

Model No.	Frequency Range, GHz	Maximum VSWR	Maximum Insertion Loss, dB	Maximum Peak Power, kW	Maximum Avg. Power Watts	Maximum Flat Leakage, mW	Maximum Spike Leakage Ergs	Maximum Turn-on Time, nanosec	Maximum Recovery Time, nanosec	Outline
LT-35	0.1-0.2	1.20	0.5	5.0	20	50	0.10	5	150	1
LT-38	0.1-1.0	1.25	0.5	3.0	10	50	0.10	5	150	1
LT-42	0.2-0.5	1.20	0.5	6.0	20	50	0.10	5	150	1
LT-44	0.2-0.3	1.20	0.5	6.0	20	50	0.07	5	150	1
LT-47	0.5-1.0	1.30	0.5	2.0	20	50	0.10	5	150	3
LT-49	0.7-0.95	1.25	0.5	6.0	50	50	0.07	5	150	5
LT-52	0.95-1.25	1.25	0.5	6.0	50	50	0.07	5	150	5
LT-55	1.0-2.0	1.30	0.6	2.0	10	50	0.10	5	150	4
LT-59	1.02-1.10	1.20	0.5	6.0	50	50	0.05	5	150	5
LT-62	1.2-1.4	1.20	0.6	5.0	30	50	0.07	5	150	5
LT-68	2.0-4.0	1.40	0.7	0.80	10	50	0.10	6	30	2
LT-76	4.0-8.0	1.40	1.2	0.75	5.0	80	0.10	5	30	2
LT-82	5.4-5.9	1.40	1.00	0.80	20	50	0.05	4	30	2
LT-83	7.0-12.4	1.50	1.70	0.30	4.0	50	0.07	5	30	2

KEY: Inches[Millimeters] .XX ±.03 .XXX ±.010 [.X ±0.8 .XX ±0.25]