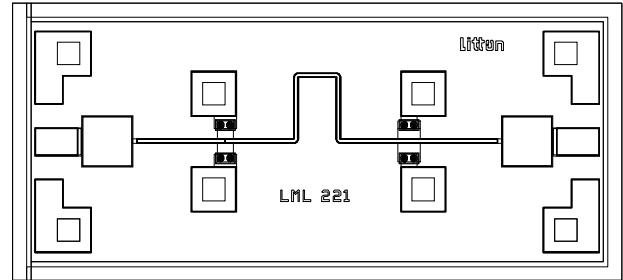


**Features**

- 0.5 dB Insertion Loss
- +15 dBm Leakage Power
- 4-6 Watts Burn-Out Power Typical
- -15 dB Input/Output Return Loss Typical
- 2-20GHz Frequency Bandwidth
- 40 nS Pulse Recovery Time
- DC Decoupled RF Input and Output
- Chip Size : 1.62 mm x 0.74 mm (0.064" x 0.029")
- Chip Thickness : 100µm
- Pad Dimension : 100µm<sup>2</sup>



**Description**

The Filtronic LML 221 Limiter is a MIN (Mott) diode limiter featuring low insertion loss, excellent pulse recovery time, and low spike leakage energy. The diode structure features a very stable Pt / Ti / Au Schottky contact, with low resistance ohmic AuGe / Ni / Au ohmic contacts. The MIN structure allows for a large diode area for improved maximum burn-out power levels while retaining wide-bandwidth performance. The MIN diodes do not generate minority carriers, thereby offering superior pulse recovery and spike leakage performance as compared to standard PIN limiters.

**Electrical Specifications at T<sub>A</sub>=25°C**

Symbol	Parameter	Test Conditions	Limits			Units
			Min.	Typ.	Max.	
BW	Operating Bandwidth		2		20	GHz
S <sub>21</sub>	Insertion Loss	P <sub>IN</sub> = 0 dBm		0.35	1.0	dB
P <sub>LK</sub>	Leakage Power	P <sub>IN</sub> ≥ 10 dBm		13	15	dBm
P <sub>MAX</sub>	Maximum Input Power (CW)		4	6		W
P <sub>MAX</sub>	Maximum Input Power (Pulsed)	Duration ≥ 1µsec, 10% Duty Cycle	4	6		W
RL <sub>IN</sub>	Input Return Loss	P <sub>IN</sub> ≤ 10 dBm	-10	-15		dB
RL <sub>OUT</sub>	Output Return Loss	P <sub>IN</sub> ≤ 10 dBm	-10	-15		dB
T <sub>R</sub>	Recovery Time	P <sub>IN</sub> = 1W 10%-90% Recovery		40	50	nS
ELK	Spike Leakage Energy	P <sub>IN</sub> = 1W		0.1	0.2	erg

**Absolute Maximum Ratings**

Symbol	Parameter/Conditions	Min.	Max.	Units
P <sub>IN</sub>	RF Input Power		10	W
T <sub>OP</sub>	Operating Temperature Range	-45	95	°C
T <sub>STG</sub>	Storage Temperature	-65	165	°C
T <sub>MAX</sub>	Max. Assembly Temp. (1 min. max.)		300	°C

Note : Specifications subject to change without notice.