

Limiters

PIN-Schottky Limiter STL 301



FEATURES

- 1 Watt CW Capability
- Wide Bandwidth, 0.5 to 18 GHz
- Low VSWR < 2.2:1
- Internal D.C. Blocks

Description/Applications

The STL301 limiter is a passive, broadband integrated assembly designed for receiver protection and power leveling applications. This is a PIN-Schottky design with built-in D.C. blocking capacitors. Metallurgical bonds are used to provide the reliability required by the most severe environments.

Systems applications include protection of transistor and FET amplifiers, mixers, and detectors in ECM, telecommunications and radar systems.

STL301 Performance Specifications @ 25°C

	Typical	Maximum
Frequency Range (GHz)	0.5 - 18.0	
Insertion Loss (dB) ¹		
0.5 - 8.0 GHz	1.25	1.50
8.0 - 18.0 GHz	1.50	2.30
VSWR ¹		
0.5 - 1.0 GHz	2.0:1	2.2:1
1.0 - 18.0 GHz	1.8:1	2.0:1
RF Leakage (dBm) ²	+14	+16.5
Limiting Threshold (dBm)	+5	---
Recovery Time ³ (μSec)	3.5	---
Power Handling ⁴		
1 W, CW		---
50 W, 1μSec, 1 kHz PRF		

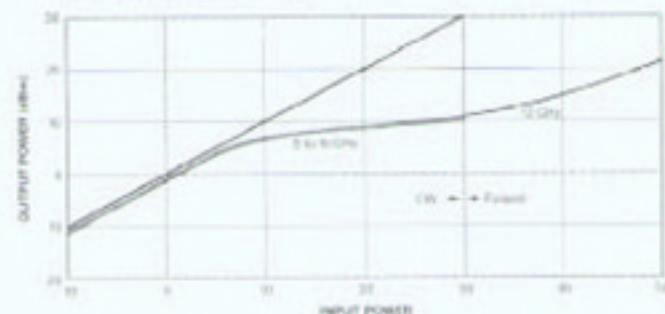
Outline Drawing -- B2

NOTES:

1. Measured at -10 dBm input
2. Leakage measured with 1 W, CW input.
3. Measured with 50 W, 1 μSec, 1 kHz pulses.
4. Derate from +25°C to 20% at +125°C.



Typical Transfer Curve



Circuit Diagram of PIN-Schottky Limiter



Environmental Ratings -- See Page 17

For outline drawings, see page 22.