

# Limiters

## PIN-PIN Limiter STL 140



### FEATURES

- 1 Watt CW Capability
- Wide Bandwidth, 2 to 18 GHz
- Low VSWR < 2.0:1
- Internal D.C. Return
- Low Insertion Loss, < 2.2 dB



### Description/Applications

The STL 140 limiter is a passive, broadband integrated assembly designed for receiver protection and power leveling applications. This is a PIN-PIN design with internal D.C. return. 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.

### STL140 Performance Specifications @ 25°C

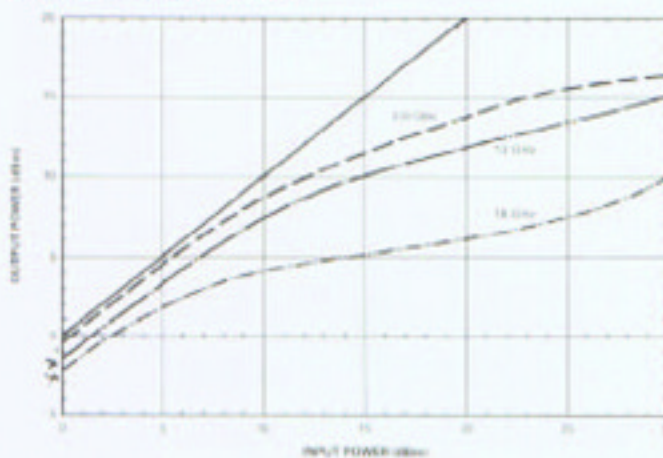
	Typical	Maximum
Frequency Range (GHz)	2.0 - 18.0	
Insertion Loss (dB) <sup>1</sup>		
2.0 - 10.0 GHz	0.8	1.2
10.0 - 18.0 GHz	1.6	2.2
VSWR <sup>1</sup> 2.0 - 18.0 GHz	1.8:1	2.0:1
RF Leakage (dBm) <sup>2</sup>	+15	+19
Limiting Threshold (dBm)	+8	---
Recovery Time <sup>3</sup> (nSec)	60	---
Power Handling <sup>4</sup>		
1 W, CW		
50 W, 1 μSec, 1 kHz PRF		

Outline Drawing – B1

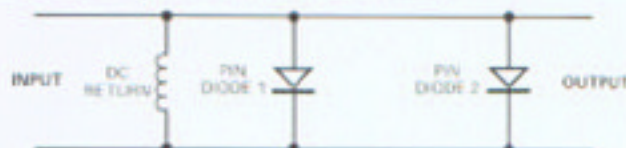
#### NOTES:

1. Measured at 0 dBm input.
2. Leakage measured with 1 W, CW input.
3. Measured with 50 W, 1μSec, 1 kHz pulses.
4. Derate from +25°C to 20% at +125°C.

### Typical Transfer Curve



### Circuit Diagram of PIN-PIN Limiter



### Environmental Ratings -- See Page 17

For outline drawings, see page 22.