STL 301 PIN-SCHOTTKY LIMITER

TECHNICAL FEATURE

FEATURES

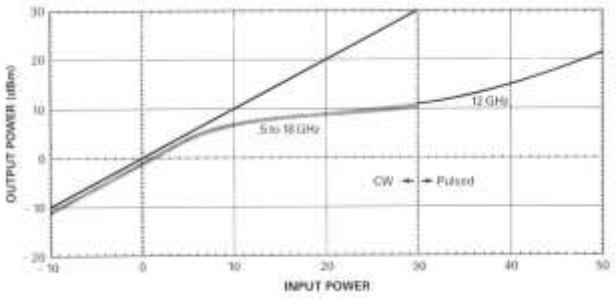
- 1 Watt CW Capability
- Wide bandwidth: 0.5 to 18 GHz
- Low VSWR < 2.2:1
- Internal DC Blocks

DESCRIPTION

The STL 301 Limiter is a passive, broadband integrated assembly designed for receiver protection and power leveling applications. This is a PIN-Schottky design with built-in DC blocking capacitors. Metallurigical 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.

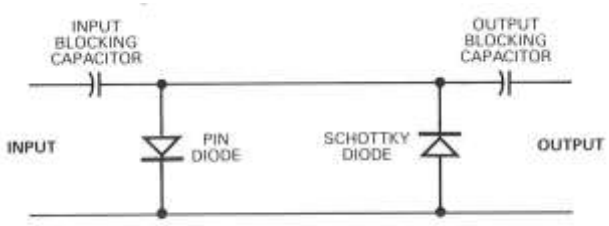
TYPICAL TRANSFER CURVE



PERFORMANCE @ 25˚C

	Typical	Maximum
Frequency Range	0.5 – 18 GHz	
Insertion Loss (dB)[1]		
0.5 -8.0 GHz	0.5	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, 1 µSec, 1 KHz PRF		
Outline Drawing – B2		

CIRCUIT DIAGRAM OF PIN-PIN LIMITER



Notes:

1. Measured at -100 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.

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ENVIRONMENTAL RATINGS

Operating Temperature .....-55°C to +125°C

Storage Temperature .....-55°C to +150° C

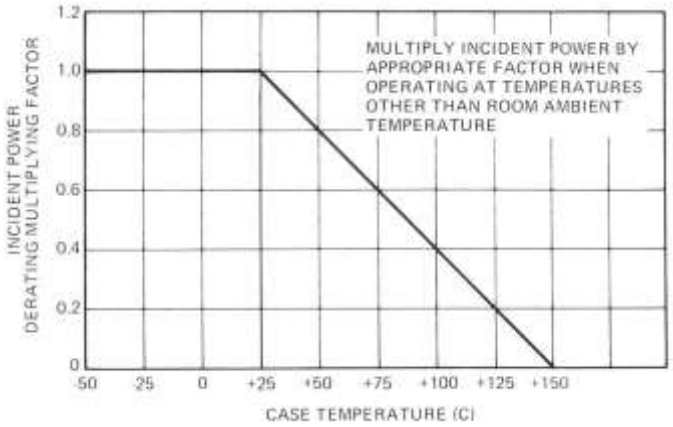
Temperature Cycling .....-55° C to +125°C

Shock .....1500 g, 0.5 msec;
.....50 g, 11 msec

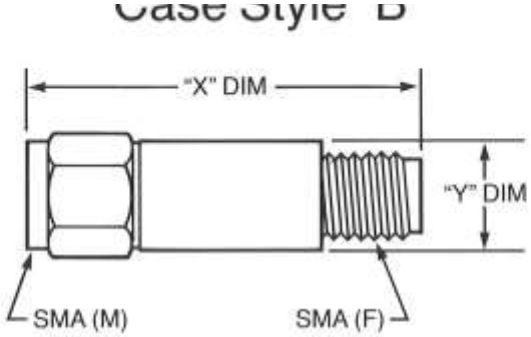
Vibration .....20g, 100 to 2000 Hz

Acceleration .....2000 g

TEMPERATURE DERATING OF INCIDENT POWER



OUTLINE DRAWING



DASH NO.	DIM "X"—INCHES/MILLIMETER				DIM "Y"—INCHES/MILLIMETER			
	MINIMUM		MAXIMUM		MINIMUM		MAXIMUM	
	IN	MM	IN	MM	IN	MM	IN	MM
B1	1.01	25.65	1.05	26.67	.310	7.87	.335	8.51
B2	1.14	28.96	1.18	29.97	.310	7.87	.335	8.51
B3	1.29	32.77	1.33	33.78	.310	7.87	.335	8.51