ACLM-4533

Pin Diode Limiter

Data Sheet Revision Date: 12/21/2015

The most important thing we build is trust

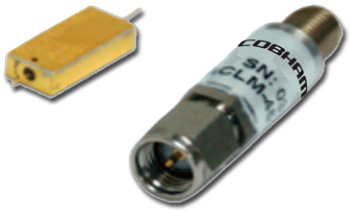
DESCRIPTION:

PIN diode limiters are built to protect sensitive circuit elements such as receiver front ends or detectors. They reduce high power inputs to a low level that can be tolerated by the next component.

Limiters may be categorized as conventional or feedback types.

Our family of conventional limiters typically exhibits leakage levels up to +20dBm with recovery times less than 40nsec. These models handle up to 1000W peak power levels and cover the frequency range form 100MHz to 26GHz.

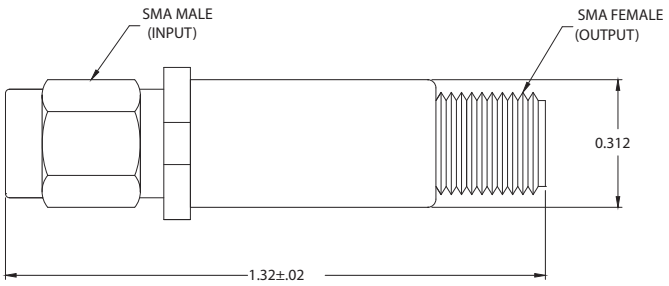
Custom models with higher power handling available.



SPECIFICATIONS:

Parameter	Standard	1K opt	Unit of Measure
Frequency Range (min)	8 – 12	8 – 12	GHz
Peak Input Power (max)	100	1000	W
CW Input Power (max)	2	5	W
Peak Flat Leakage (max)	21	21	dBm
CW Flat Leakage (max)	18	18	dBm
Insertion Loss (max)	1.5	1.5	dB
VSWR (max)	1.6:1	1.6:1	ratio

OUTLINE DRAWING:



STANDARD CASE STYLE C3
(Optional Case Styles – C36, C37, M22)
Solidworks Model: available

FEATURES:

- Built to protect sensitive circuit elements such as receiver front ends or detectors
- Reduce high power inputs to a low level that can be tolerated by the next component
- Custom models with higher power handling are available

NOTES:

CW Leakage is measured at 1W input

Power handling is linearly derated from full power at 25˚C to zero power at +150˚C

Peak power conditions are 1.0µs pulse width and 0.1% duty cycle

SCREENING:

Internal Visual per MIL-STD-883, Method 2017

Temperature Cycle: -65°C to +100°C, 10 cycles

OPTIONAL HIGH-REL SCREENING (Ref MIL-PRF-38534):

Stabilization Bake per MIL-STD-883, Method 1008

Temperature Cycle per MIL-STD-883, Method 1010

Constant Acceleration per MIL-STD-883, Method 2001

Burn-in per MIL-STD-883, Method 1015

Leak Test per MIL-STD-883, Method 1014

External Visual per MIL-STD-883, Method 2009

ENVIRONMENTAL SPECIFICATIONS*:

MIL-E-5400, MIL-STD-202, MIL-E-16400

Operating Temp: -55°C to +125°C

Storage Temp: -65°C to +150°C

Humidity: MIL-STD-202F, M103, Cond B

Shock: MIL-STD-202F, M213, Cond B

Altitude: MIL-STD-202F, M105, Cond B

Vibration: MIL-STD-202F, M204, Cond B

Thermal Shock: MIL-STD-202F, M107, Cond A

* Compliant by design, verification optional

PART NUMBER ORDERING INFORMATION:

Add desired case style suffix: "C3" (Ex: ACLM-4538C3)

Add "R" suffix: Reverse Connector Configuration (Ex: ACLM-4538C3R) (SMA Female Input/SMA Male Output)

Add "1K" suffix: High power handling version: (Ex: ACLM-4538C3R1K)

Add "-RC" suffix: RoHS-compliant (Ex: ACLM-4538C3R1K-RC)

ISO 9001:2008 and AS9100 certified

For further information please contact:

Cobham Signal & Control Solutions
40 Industrial Way East
Eatontown , NJ 07724 [USA]
Phone: (732) 460-0212
Fax: (732) 460-0214
ASCS-sales@aeroflex.com