



High Power Limiter, SMA, 100W Peak Power, 10 ns Recovery, 14 dBm Flat Leakage, 500 MHz to 18 GHz

Limiters Technical Data Sheet

PE80L1000

Features

- High Speed 1 Watt Limit
- 0.5 GHz to 18 GHz Frequency Range
- Insertion Loss @ -20 dBm 1.5 dB
- VSWR @ -20 dBm 1.5:1
- Leakage @ 1 Watt CW 10 dBm
- Speed 10 ns
- Limiting Threshold +10 dBm
- High Power Handling
- Very Fast Recovery Time

Applications

- Electronic Warfare
- Test & Measurement
- Military & Space
- Military Communication Systems
- Stabilizing generator outputs
- Reducing amplitude variations
- Protects low noise amplifiers and other devices from ESD or input power damage
- Receiver Protection
- Weapon systems

Description

The PE80L1000 is a High Power Limiter that operates from 0.5 GHz to 18 GHz.

Electrical Specifications

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.5		18	GHz
Insertion Loss @ Pin=-20 dBm		1.5	2	dB
Input VSWR		1.5:1	2:1	
Leakage (CW)		+10	+14	dBm
Speed		10		ns
Recovery Time*		10		ns
Input Power (CW)			1	Watt
Derated by 20% @ +125°C				
Input Power (Peak) @1us pulse, 0.1% Duty Cycle			100	Watt
Limiting Threshold		+10		dBm

Electrical Specification Notes:

Values at 25°C, sea level.

* Single Tone Input Pulse: 1W @ 6 GHz (1 MHz - 50% Duty Cycle)

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [High Power Limiter, SMA, 100W Peak Power, 10 ns Recovery, 14 dBm Flat Leakage, 500 MHz to 18 GHz PE80L1000](#)



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Mechanical Specifications

Size

Length	0.5 in [12.7 mm]
Width	0.5 in [12.7 mm]
Height	0.22 in [5.59 mm]
Weight	0.027 lbs [12.25 g]

Configuration

Style	Limiter
Connector 1	SMA Female
Connector 2	SMA Female

Environmental Specifications

Temperature

Operating Range	-54 to +85 deg C
Storage Range	-65 to +125 deg C

Humidity

Shock

Vibration

Altitude

Temperature Cycle

Fungus

Salt Fog

ESD Sensitivity

MIL-STD-202F, METHOD 103B COND. B
MIL-STD-202F, METHOD 213B COND. B
MIL-STD-202F, METHOD 204D COND. B
MIL-STD-202F, METHOD 105C COND. B
MIL-STD-202F, METHOD 107D COND. A
MIL-STD-810F, METHOD 508.5
MIL-STD-202F, METHOD 101D+EST Cond.B
Transport material in Approved ESD bags. Handle only in approved ESD Workstation.

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

- Values at 25°C, sea level.

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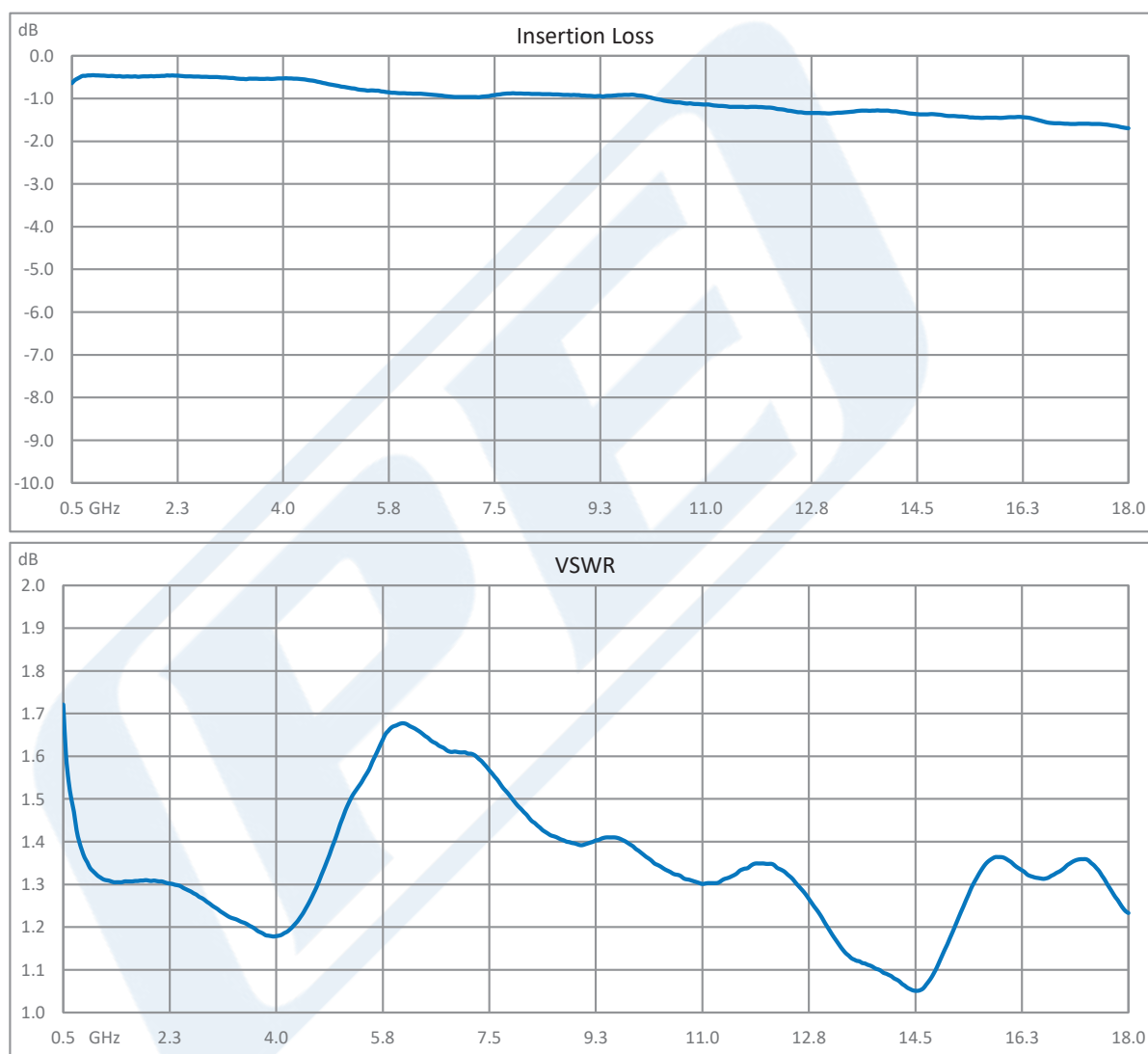


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Typical Performance Data

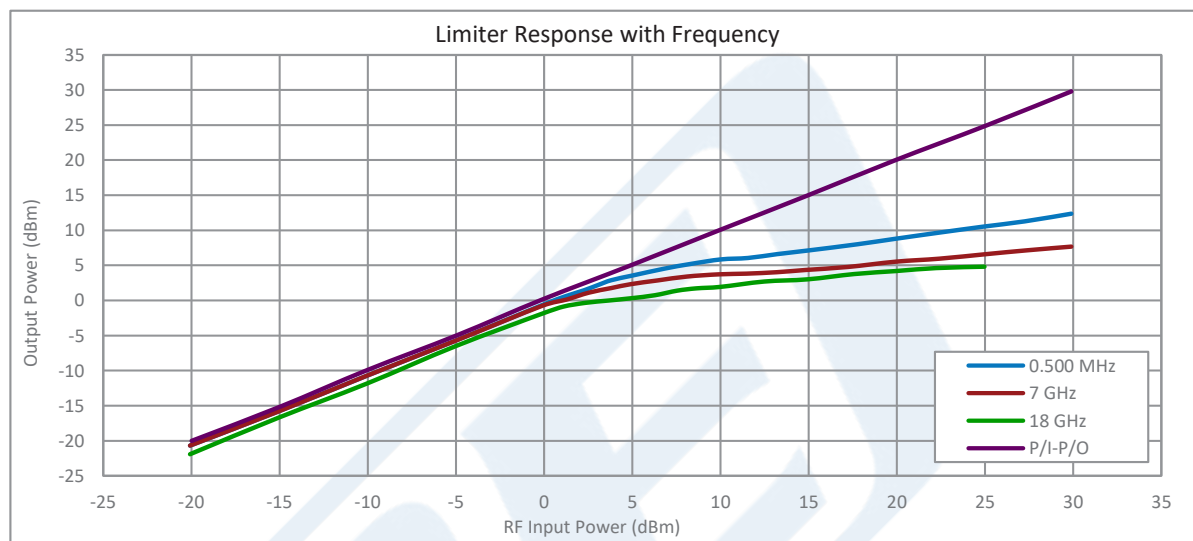


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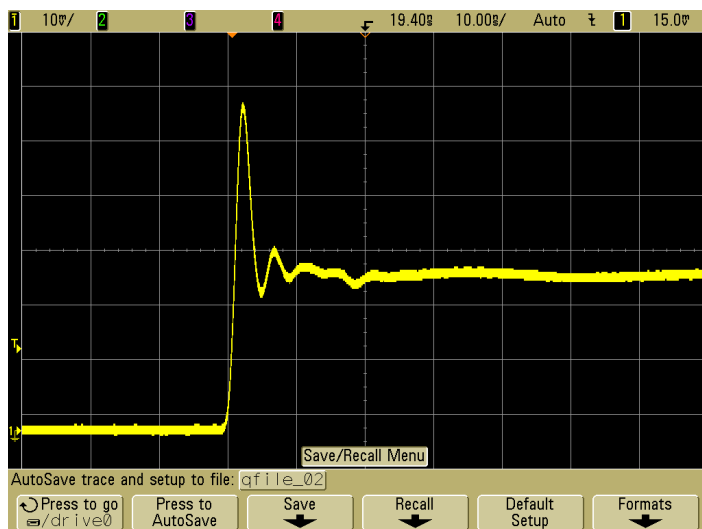


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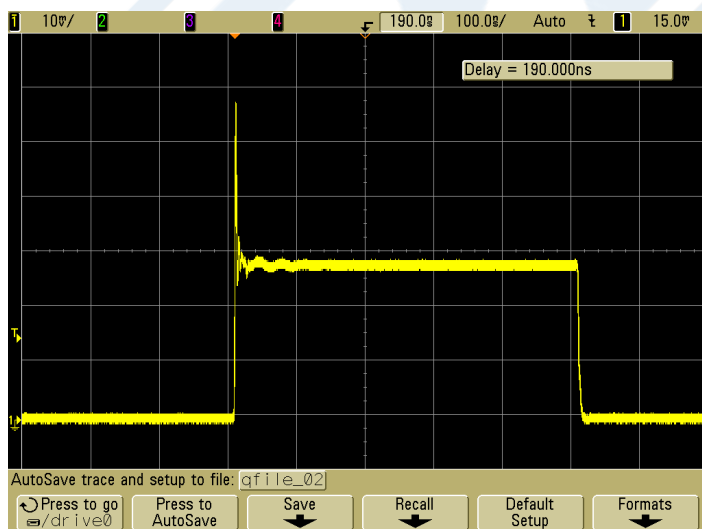
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Overshoot and Flat Leakage Settling Time Response



Falling Edge Response



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High Power Limiter, SMA, 100W Peak Power, 10 ns Recovery, 14 dBm Flat Leakage, 500 MHz to 18 GHz from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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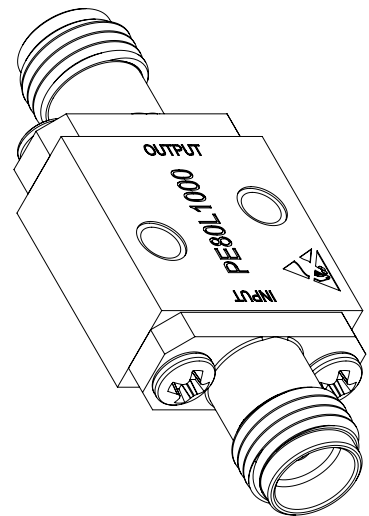
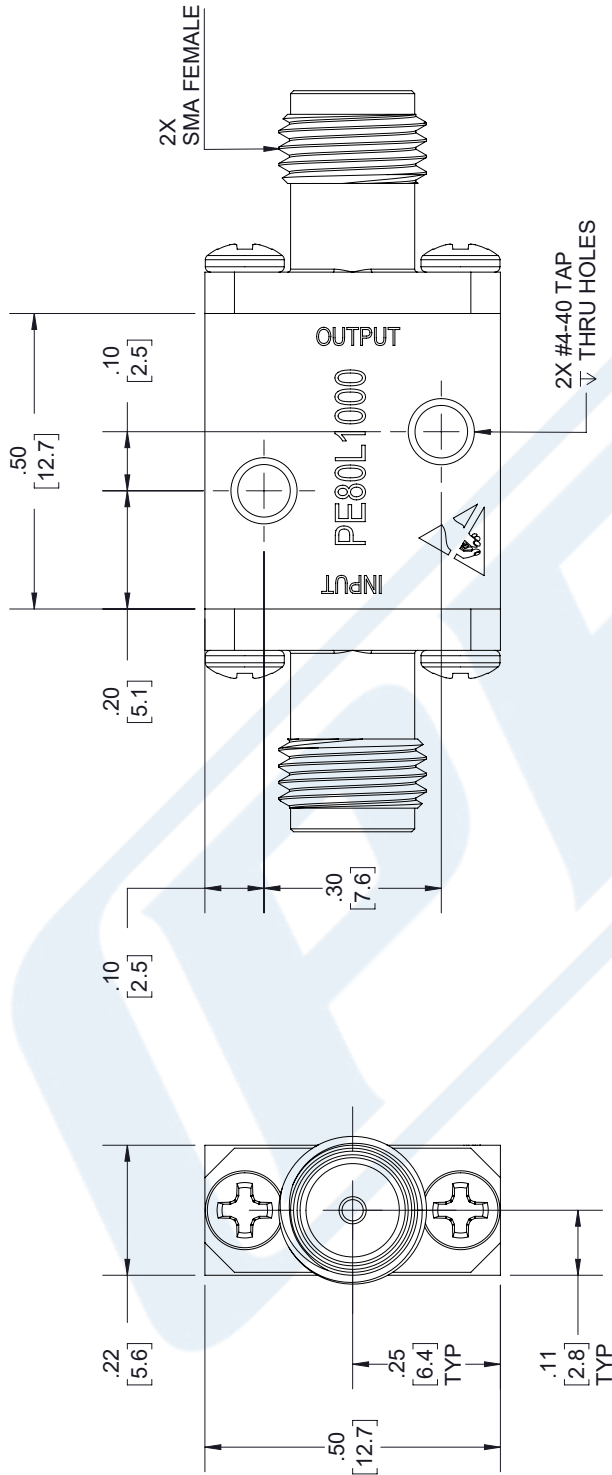
URL: <https://www.pasternack.com/sma-limiter-high-power-10-ns-10-dbm-18-ghz-pe80l1000-p.aspx>

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PE80L1000 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	PCR SML-0518-01-14-SMA	4/24/2020	T. GALLA



UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:
 .X = ± .2 [5.08]
 .XX = ± .02 [.51]
 .XXX = ± .005 [.13]
 ANGLES ± 1°
 CABLE LENGTH (L) TOLERANCES:
 L ≤ 12 [305] = +1 [25] / -0
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
 300 [7620] < L = +5% L / -0
 ALL DIMENSIONS SHOWN
 ARE FOR REFERENCE ONLY.

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SHEET 1 OF 1

SCALE N/A

SIZE A CAGE CODE 53919 DRAWN BY K.DANG ITEM NO. PE80L1000 REV A

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