



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](#)



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

## Limiters Technical Data Sheet

PE80L1000

### 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	MIL-STD-202F, METHOD 103B COND. B
Shock	MIL-STD-202F, METHOD 213B COND. B
Vibration	MIL-STD-202F, METHOD 204D COND. B
Altitude	MIL-STD-202F, METHOD 105C COND. B
Temperature Cycle	MIL-STD-202F, METHOD 107D COND. A
Fungus	MIL-STD-810F, METHOD 508.5
Salt Fog	MIL-STD-202F, METHOD 101D+EST Cond.B
ESD Sensitivity	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.

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](#)

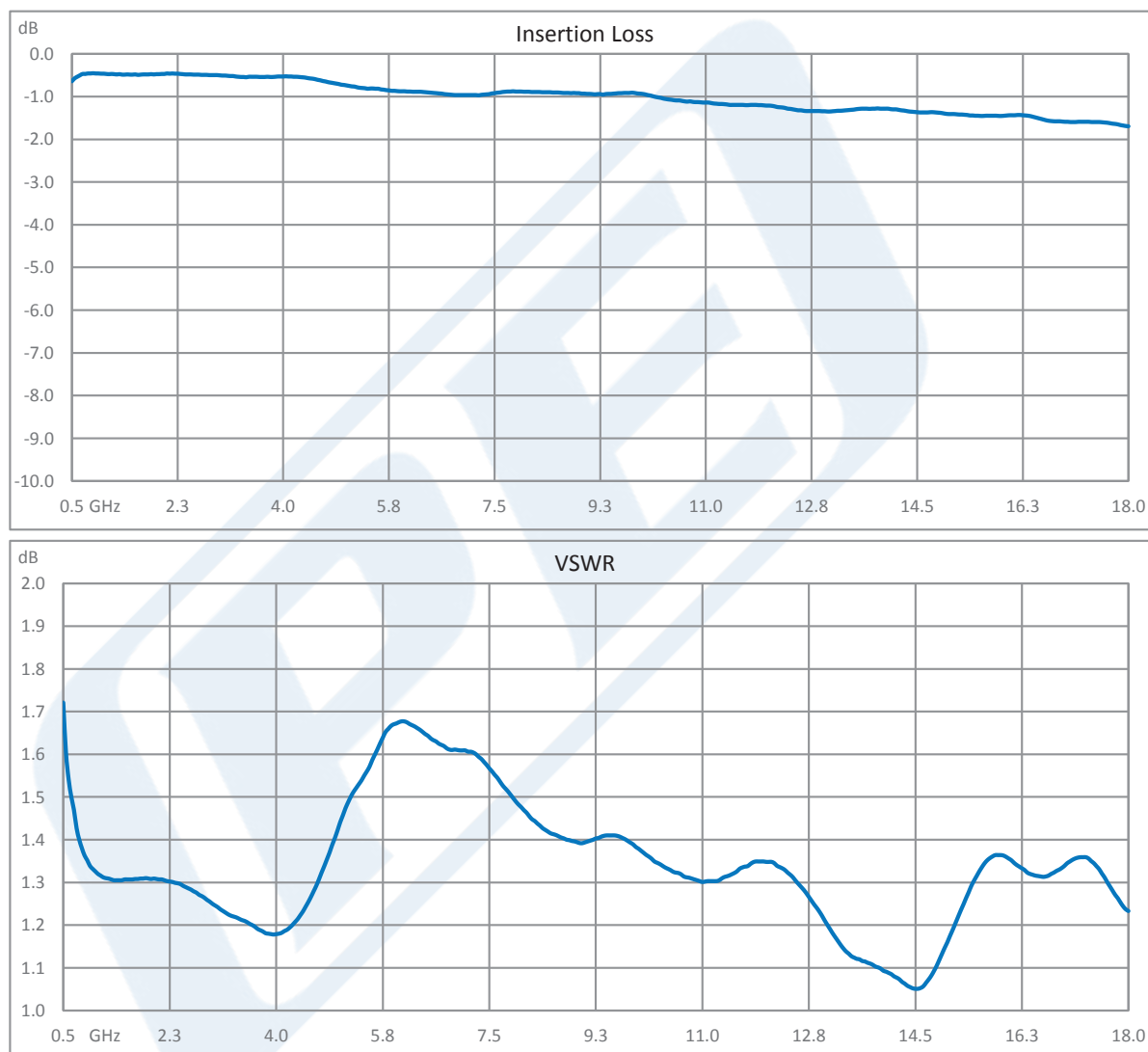


High Power Limiter, SMA, 100W Peak Power, 10 ns  
Recovery, 14 dBm Flat Leakage, 500 MHz to 18 GHz

## Limiters Technical Data Sheet

PE80L1000

### Typical Performance Data



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](#)

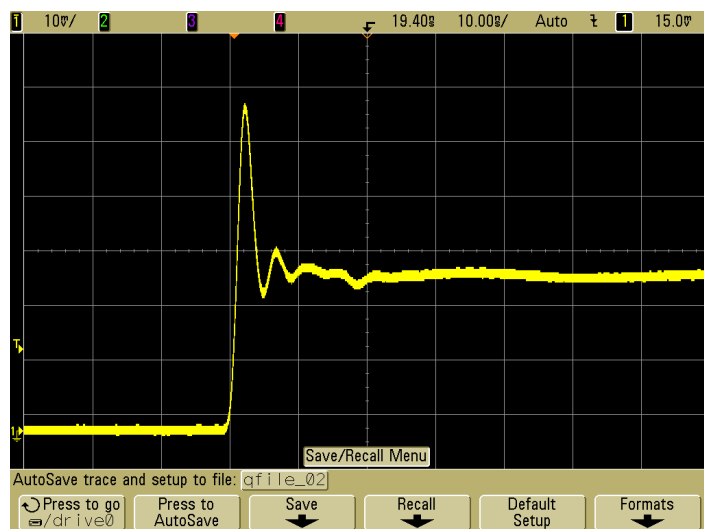


High Power Limiter, SMA, 100W Peak Power, 10 ns  
Recovery, 14 dBm Flat Leakage, 500 MHz to 18 GHz

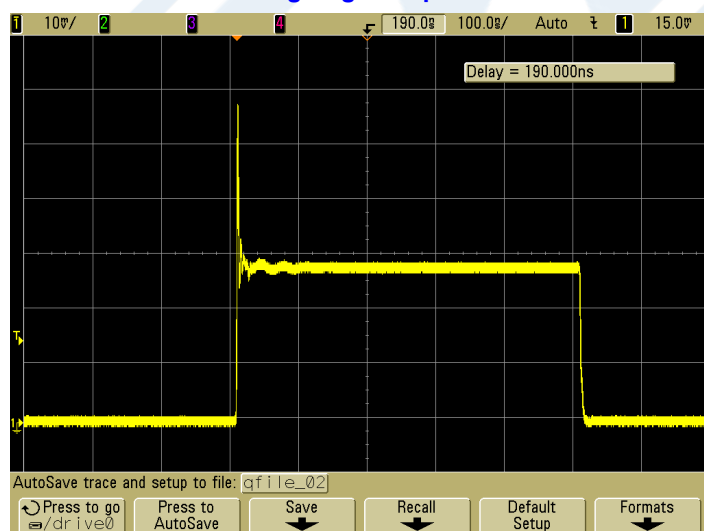
## Limiters Technical Data Sheet

PE80L1000

### Overshoot and Flat Leakage Settling Time Response



### Falling Edge Response



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](#)



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

## Limiters Technical Data Sheet

PE80L1000

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.

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](https://www.pasternack.com/sma-limiter-high-power-10-ns-10-dbm-18-ghz-pe80l1000-p.aspx)

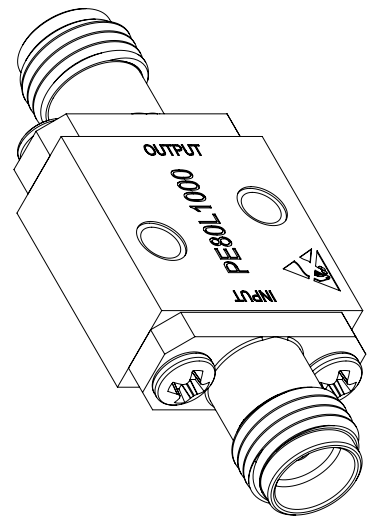
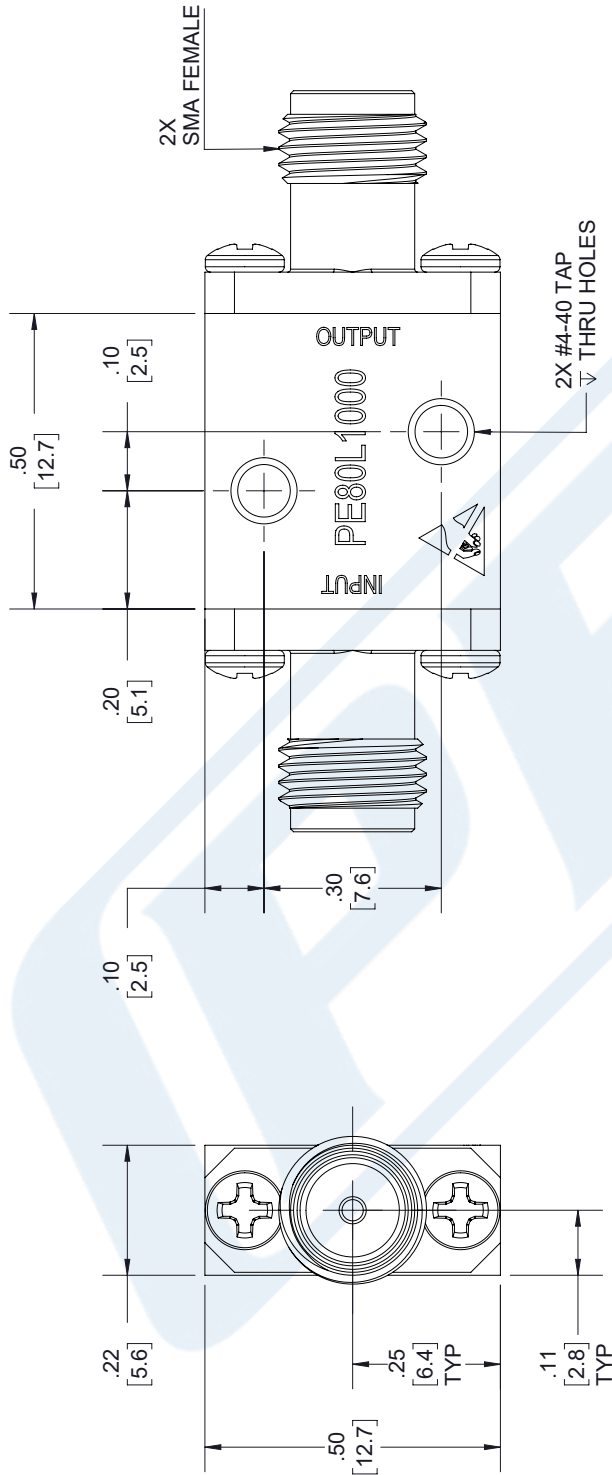
URL: <https://www.pasternack.com/sma-limiter-high-power-10-ns-10-dbm-18-ghz-pe80l1000-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

# PE80L1000 CAD Drawing

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

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



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

TOLERANCES:  
 .X = ± .2 [5.08]  
 .XX = ± .02 [ .51]  
 .XXX = ± .005 [ .13]  
 FRACTIONS ± 1/32  
 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.

**PE PASTERNAK**  
an INFINITI® brand

Pasternack Enterprises, Inc.  
 P.O. Box 16759, Irvine, CA 92623.  
 Phone: 1.949.261.1920 | 1.866.727.8376  
 Fax: 1.949.261.7451  
 Website: www.pasternack.com  
 E-mail: sales@pasternack.com

THIRD-ANGLE PROJECTION

THE INFORMATION AND  
DESIGN IN THIS DOCUMENT  
IS THE PROPERTY OF  
PASTERNAK CORPORATION  
ALL RIGHTS RESERVED.

SHEET 1 OF 1

SCALE N/A

REV A

ITEM NO. PE80L1000

SIZE A

CAGE CODE 53919

DRAWN BY K.DANG

REV A

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.