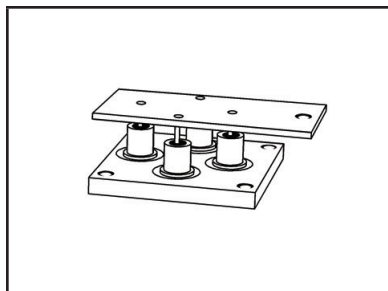


HIGH ENERGY - EXTENDED PULSE TVS



MODULE PACKAGE

DESCRIPTION

The PPZ516/B is a high power transient voltage suppressor (TVS) designed to provide protection against long duration switching transient threats. This heavy duty device is constructed using hermetically sealed TVS subassemblies and is suited for DC applications that include heavy duty motors, generators, or where DC power is being switched on and off at frequent intervals.

FEATURES

- Compatible with IEC 61000-4-5 (Surge): 95A, 8/20 μ s Level 3(Line-Gnd) & Level 4(Line-Line)
- 20,000 Watts Peak Pulse Power per Line (tp = 1ms)
- Unidirectional & Bidirectional Configurations
- Each Device 100% Tested

APPLICATIONS

- Remote DC Power Supply, Base Station & Microwave Protection
- Electric Drive Motors & Controls
- Mobile Electronics Operating in Harsh Environments

MECHANICAL CHARACTERISTICS

- Hermetically Sealed Sub-Assemblies
- Approximate Weight: 38 grams
- Flammability Rating UL 94V-0

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp = 1ms) - See Figure 1	P_{PP}	20	kilowatts
Operating Temperature	T_L	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C
Steady State Power Dissipation (derate 2.33W/°C)	P_D	350	Watts

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER (Notes 1 & 2)	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE		MAXIMUM CLAMPING VOLTAGE (Fig. 2) @ I_{PPM} V_C VOLTS	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_D μA	PEAK PULSE CURRENT (Fig. 2) I_{PPM} AMPS
		$V_{(BR)}$ VOLTS	@ I_T mA			
PPZ516 & PPZ516B	14	16	18	20	40	200

NOTE

1. Maximum VF = 3.5V @ 100A, 8.3ms (sine wave).
2. PPZ516 is unidirectional. PPZ516B is bidirectional.

TYPICAL DEVICE CHARACTERISTICS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

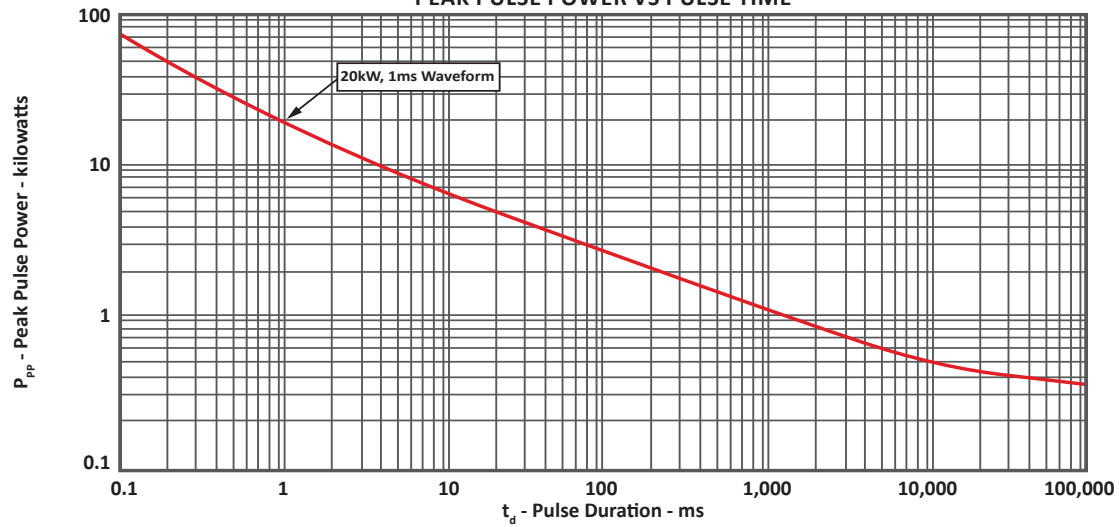


FIGURE 2
PULSE WAVEFORM

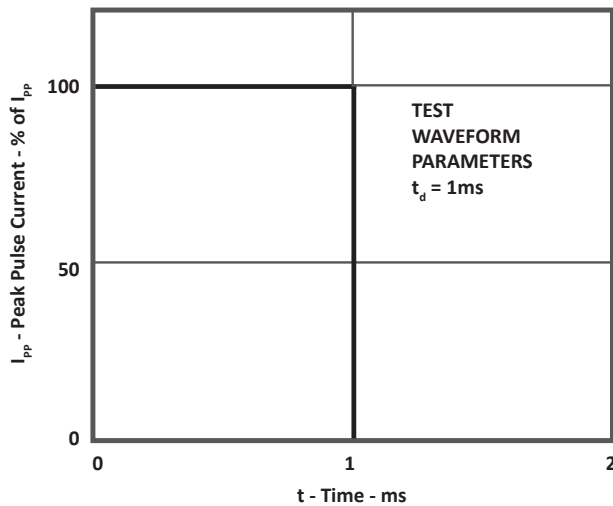
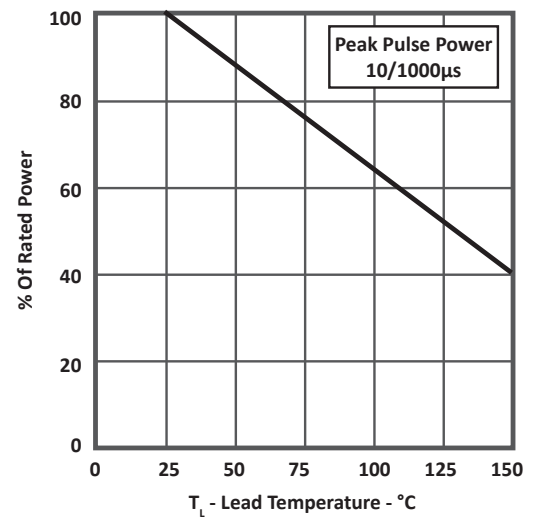
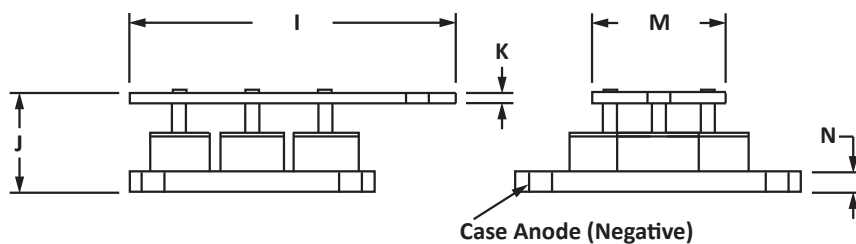
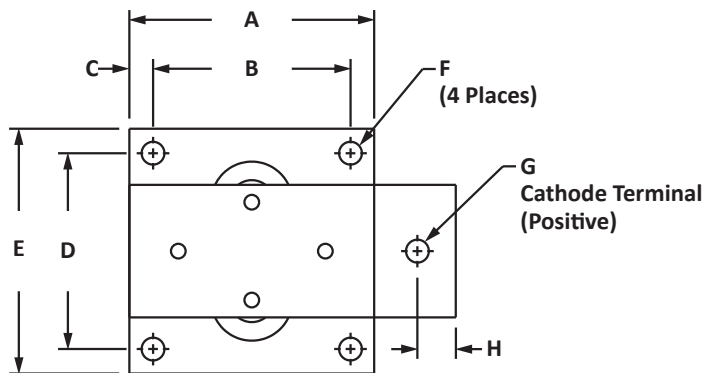


FIGURE 3
POWER DERATING CURVE



PACKAGE INFORMATION

OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	35.56	40.64	1.40	1.60
B	27.94	33.02	1.10	1.30
C	3.56	4.06	0.14	0.16
D	27.94	33.02	1.10	1.30
E	35.56	40.64	1.40	1.60
F	3.30 DIA.	3.81 DIA.	0.13 DIA.	0.15 DIA.
G	3.30 DIA.	3.81 DIA.	0.13 DIA.	0.15 DIA.
H	3.56	4.06	0.14	0.16
I	48.26	53.34	1.90	2.10
J	-	17.02	-	0.67
K	1.52	1.78	0.060	0.070
M	20.32	20.83	0.800	0.820
N	3.05	3.30	0.120	0.130



ORDERING INFORMATION

BASE PART NUMBER	MARKING
PPZ516 & PPZ516B	Logo, Date Code, and Part Number

COMPANY INFORMATION

COMPANY PROFILE

In business more than 25 years, ProTek Devices™ is a privately held semiconductor company. The company offers a product line of overvoltage protection and overcurrent protection components. These include transient voltage suppressor array (TVS arrays) avalanche breakdown diode, steering diode TVS array and electronics SMD chip fuses. These components deliver circuit protection in electronic systems from numerous overvoltage and overcurrent events. They include lightning; electrostatic discharge (ESD); nuclear electromagnetic pulses (NEMP); inductive switching; and electromagnetic interference (EMI) / radio frequency interference (RFI). ProTek Devices also offers LED wafer die for ESD protection and related high frequency products. ProTek Devices is ISO 9001:2015 certified.

CONTACT US

Corporate Headquarters

2929 South Fair Lane
Tempe, Arizona 85282
USA

By Telephone

General: 602-431-8101
Sales: & Marketing: 602-414-5109
Customer Service: 602-414-5114
Product Technical Support: 602-414-5107

By Fax

General: 602-431-2288

By E-mail:

Asia Sales: asiasales@protekdevices.com
Europe Sales: europesales@protekdevices.com
U.S. Sales: ussales@protekdevices.com
Distributor Sales: distysales@protekdevices.com
Customer Service: service@protekdevices.com
Technical Support: support@protekdevices.com

ProTek Devices (Asia Pacific) Pte. Ltd.

8 Ubi Road 2, #06-19
Zervex
Singapore - 408538
Tel: +65-67488312
Fax: +65-67488313

Web

www.protekdevices.com

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