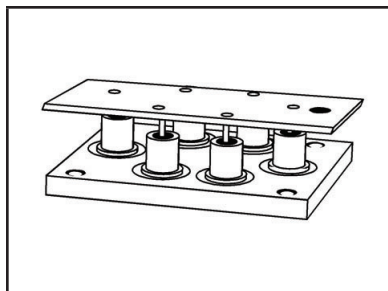


## HIGH ENERGY - EXTENDED PULSE TVS



**GPZ1275 PACKAGE**

### DESCRIPTION

The GPZ1275 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 $\mu$ s Level 3(Line-Gnd) & Level 4(Line-Line)
- MIL-STD-1275 Compliant
- 30,000 Watts Peak Pulse Power per Line (tp = 1ms)
- High Average (DC) Power Dissipation
- Superior Heat Dissipation Capability
- Each Device 100% Tested
- CE Compliant

### APPLICATIONS

- Remote DC Power Supply, Base Station & Microwave Protection
- MIL-STD-1275 Power Bus Protection
- Electric Drive Motors & Controls
- Mobile Electronics Operating in Harsh Environments

### MECHANICAL CHARACTERISTICS

- Hermetically Sealed Sub-Assemblies
- Approximate Weight: 65 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	$P_{PP}$	30	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)	$T_A$	350	Watts

#### ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER (Note 1)	RATED STAND-OFF VOLTAGE  $V_{WM}$ VOLTS	MINIMUM BREAKDOWN VOLTAGE		MAXIMUM CLAMPING VOLTAGE (Fig. 2)  @ $I_{PPM}$ $V_C$ VOLTS	MAXIMUM LEAKAGE CURRENT  @ $V_{WM}$ $I_D$ $\mu$ A	MAXIMUM PEAK PULSE CURRENT (Fig. 2)  $I_{PPM}$ AMPS
		$V_{(BR)}$ VOLTS	@ $I_T$ mA			
GPZ1275	28	32	30	55	60	500

#### NOTE

1. Maximum VF = 3.5V @ 100A, 8.3ms (sine wave).

TYPICAL DEVICE CHARACTERISTICS

FIGURE 1  
PEAK PULSE POWER VS PULSE TIME

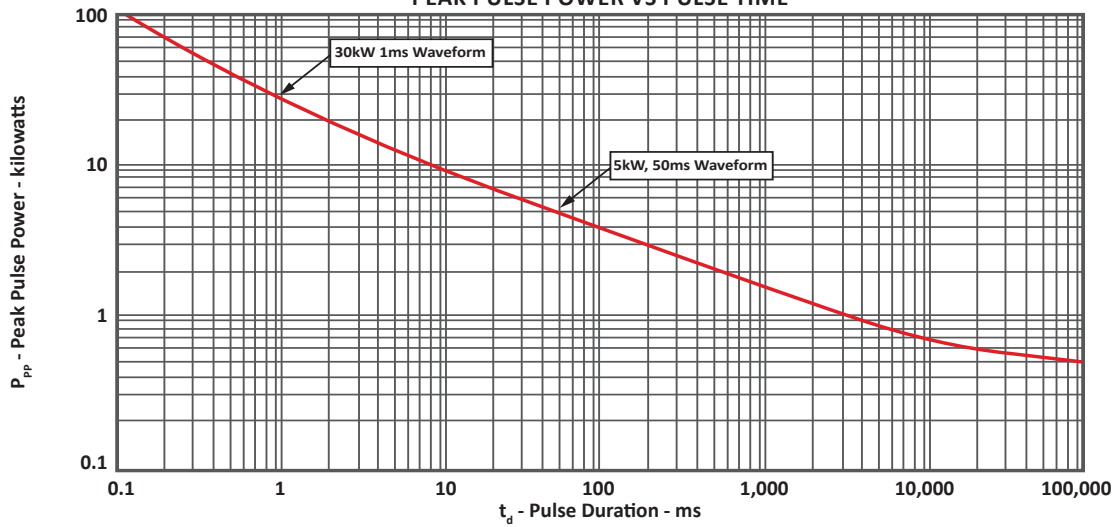


FIGURE 2  
PULSE WAVEFORM

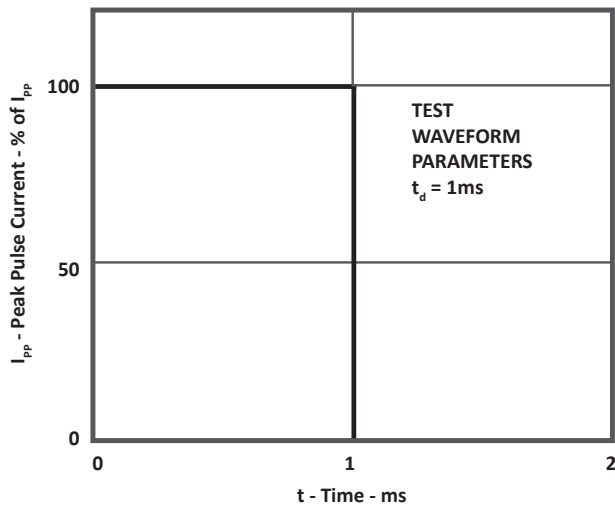
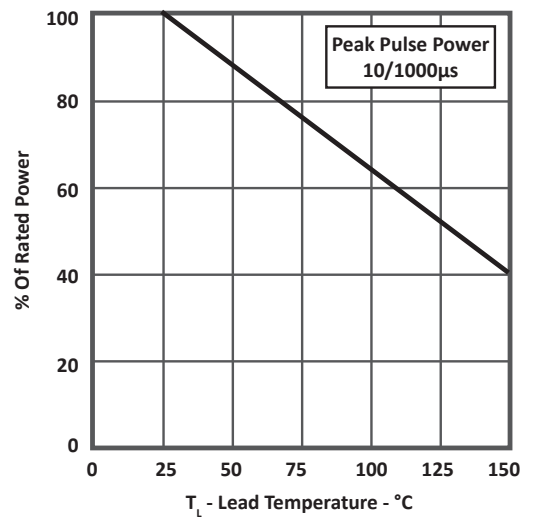
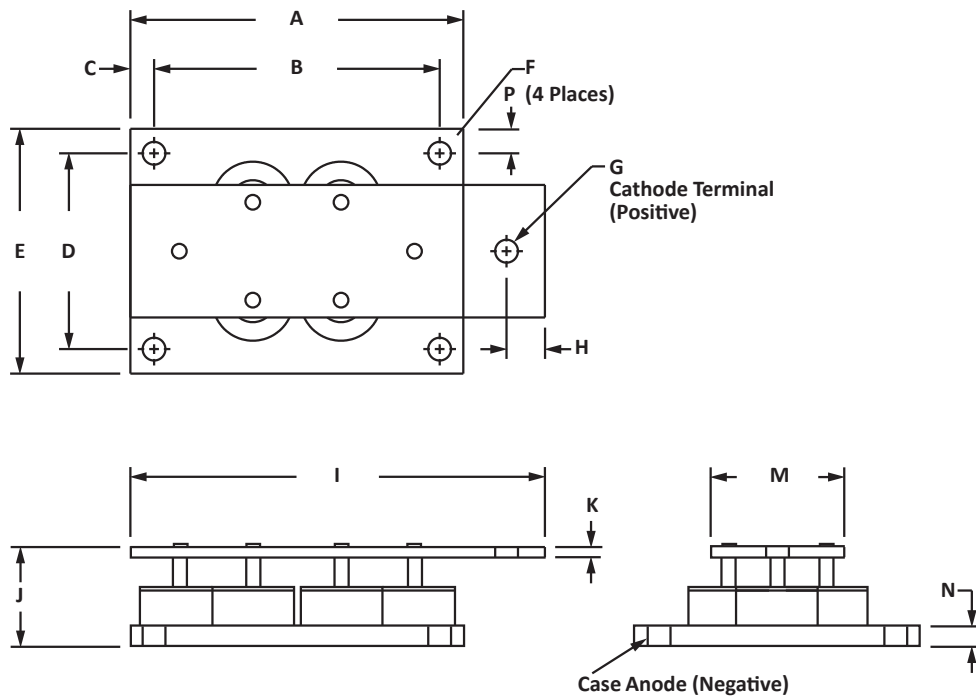


FIGURE 3  
POWER DERATING CURVE



**PACKAGE INFORMATION**
**OUTLINE DIMENSIONS**

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	49.28	54.36	1.94	2.14
B	43.18	45.72	1.70	1.80
C	3.56	3.81	0.14	0.15
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	5.84 DIA.	6.10 DIA.	0.23 DIA.	0.24 DIA.
H	5.84	6.10	0.23	0.24
I	64.26	64.77	2.53	2.55
J	-	17.02	-	0.67
K	1.52	1.78	0.060	0.070
M	20.57	20.83	0.810	0.820
N	3.05	3.30	0.120	0.130
P	3.56	4.06	0.140	0.160


**ORDERING INFORMATION**

BASE PART NUMBER	MARKING
GPZ1275	Logo, Date Code, and Part Number

## COMPANY INFORMATION

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### COMPANY PROFILE

In business more than 20 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.

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