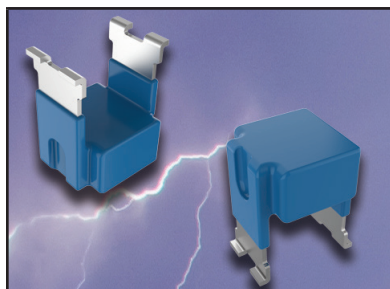


HIGH CURRENT TVS DIODES



ENCAPSULATED DEVICE

DESCRIPTION

The PDTVSxxCA Series of high current bidirectional TVS diodes are designed for use in high powered DC bus clamping applications. These devices offer bidirectional port protection and are available in 58 and 76 Volts. The PDTVSxxCA Series are IEC 61000-4-5 compliant.

APPLICATIONS

- High Power DC Bus

FEATURES

- UL Registered
- Compatible with IEC 61000-4-5
- 3kA, 8/20 μ s Surge Capability
- Low Clamping Voltage Under Surge
- Bidirectional
- Surface Mount Package
- RoHS Compliant

MECHANICAL CHARACTERISTICS

- Epoxy Encapsulated Device
- Flammability Rating UL 94V-0
- Marking: Logo, Date Code & Marking Code

Bidirectional



MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Operating Junction Temperature	T_J	-55 to 125	°C
Storage Temperature	T_S	-55 to 150	°C
Peak Current Rating per 8/20 μ s IEC 61000-4-5	I_{PPM}	3	kA

TYPICAL DEVICE CHARACTERISTICS

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER	MARKING CODE	REPETITIVE STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM STANDBY CURRENT	MAXIMUM CLAMPING VOLTAGE (Note 1)	TEMPERATURE COEFFICIENT OF $V_{(BR)}$	TYPICAL CAPACITANCE
		V_{WM} VOLTS	$V_{(BR)}$ @ 10mA VOLTS	I_D @ V_{WM} μ A	@ $I_{PP} = 3kA$ V_C VOLTS	$qV_{(BR)}$ mV/°C	@ 1V, 10kHz C nF
PDTV558CA	58V	58.0	64.0	5	110	0.1	2.3
PDTV576CA	76V	76.0	85.0	5	140	0.1	1.7

NOTE

1. V_C measured at the time which is coincident with the peak surge current.

FIGURE 1
PULSE WAVE FORM

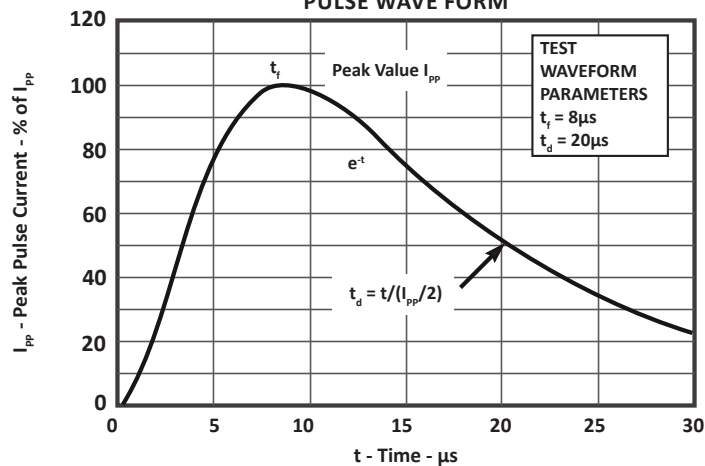
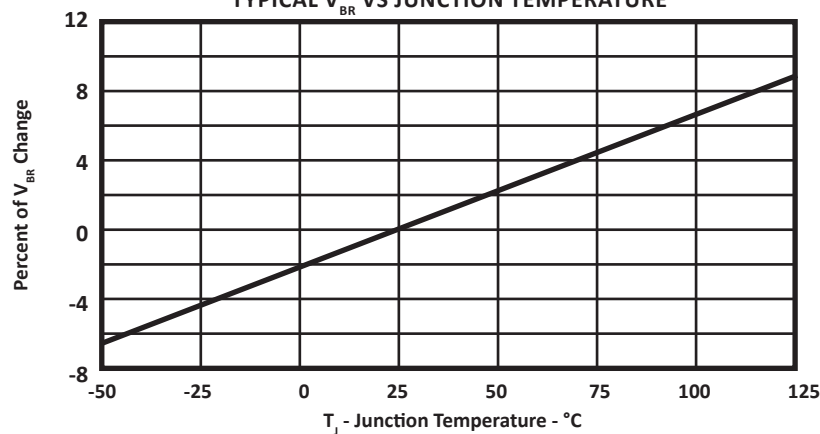


FIGURE 2
TYPICAL V_{BR} VS JUNCTION TEMPERATURE



TYPICAL DEVICE CHARACTERISTICS

FIGURE 3
V-I CHARACTERISTIC
CURRENT I

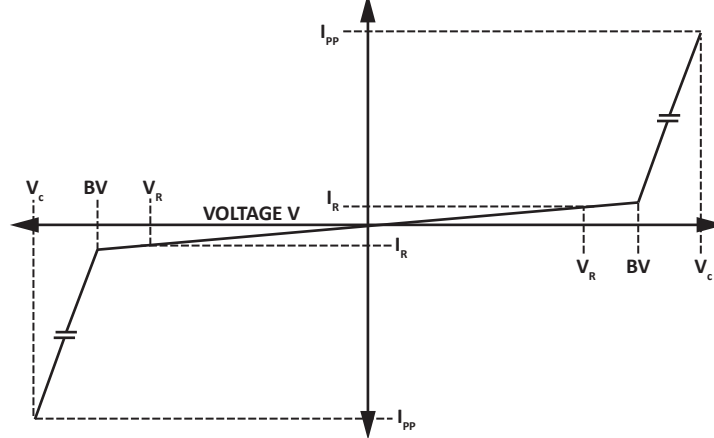
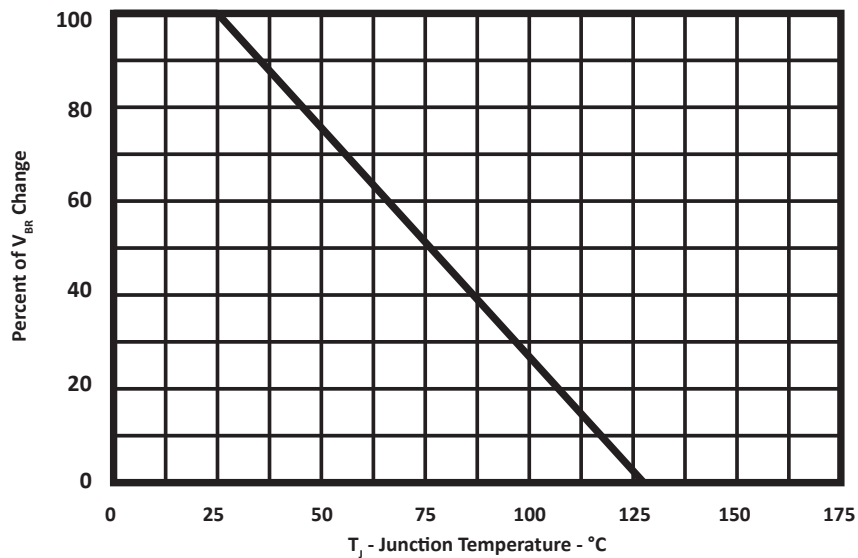


FIGURE 4
TYPICAL V_{BR} VS JUNCTION TEMPERATURE

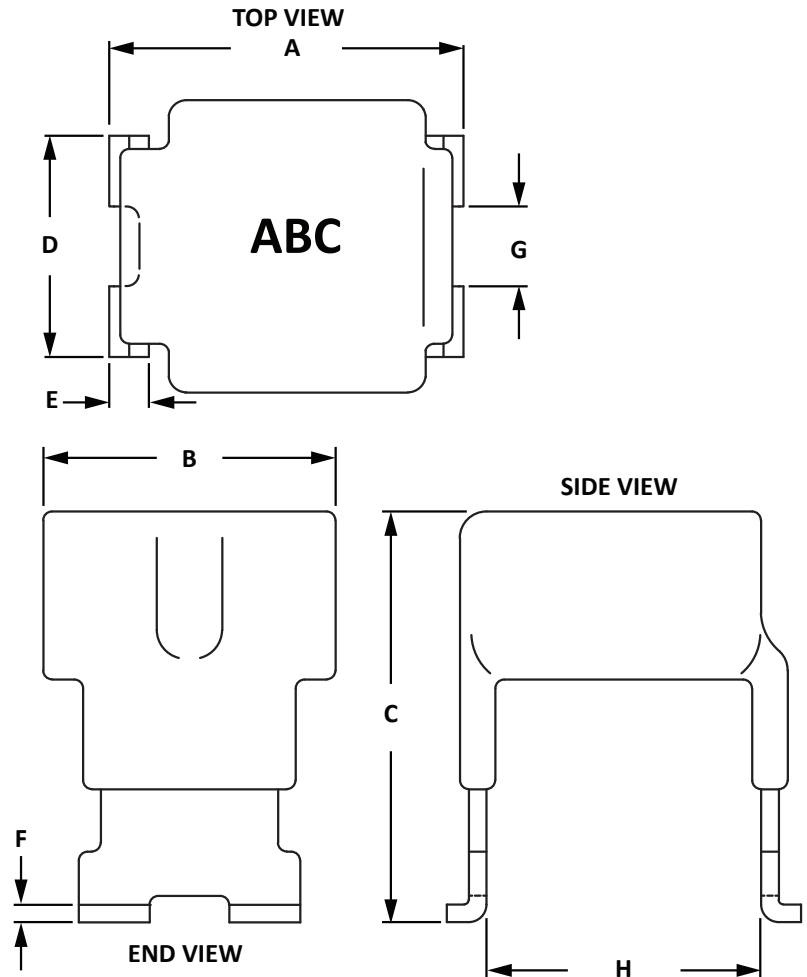


PACKAGE INFORMATION
OUTLINE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	9.78	10.50	0.385	0.415
B	7.87	8.89	0.310	0.350
C	11.43	12.46	0.450	0.490
D	6.22	6.47	0.245	0.255
E	1.02	1.27	0.040	0.050
F	0.51		0.020	
G	2.17	2.41	0.085	0.095
H	7.37	8.13	0.290	0.320

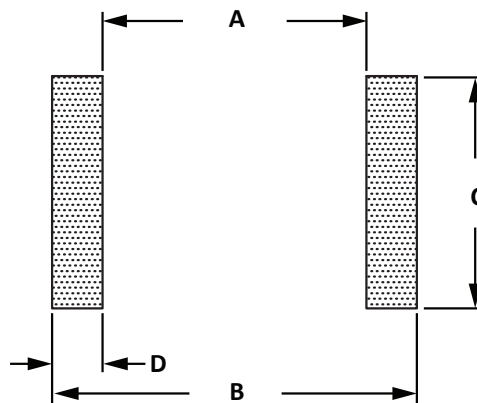
NOTES

1. Dimensions are exclusive of mold flash and metal burrs.

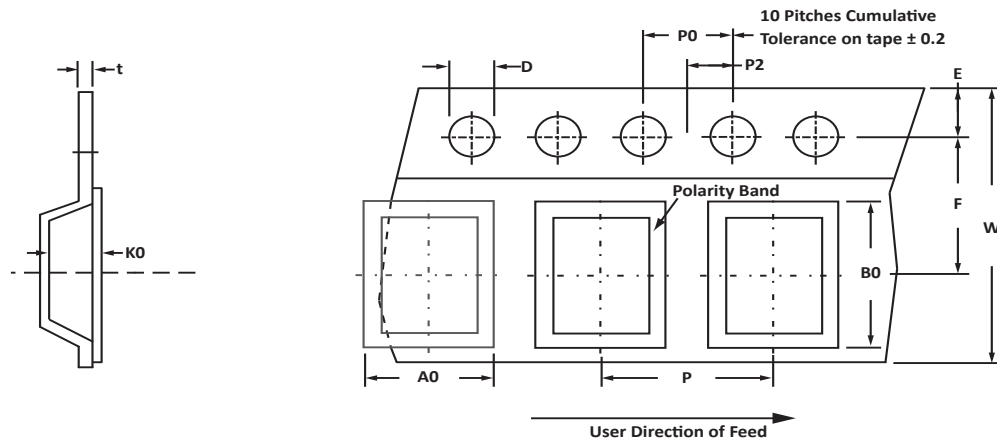

PAD LAYOUT DIMENSIONS

DIM	MILLIMETERS	INCHES
	NOMINAL	NOMINAL
A	7.57	0.298
B	10.46	0.412
C	6.65	0.262
D	1.45	0.057

NOTES

 1. Decimal tolerances: $\pm 0.003''$


TAPE AND REEL



SPECIFICATIONS

REEL DIA.	TAPE WIDTH	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
330mm (13")	12mm	7.82 ± 0.3	10.60 ± 0.3	12.50 ± 0.2	1.50 ± 0.1	1.75 ± 0.1	11.50 ± 0.05	24.00 ± 0.3	4.00 ± 0.1	2.00 ± 0.1	16.00 ± 0.2	0.4

NOTES

- Dimensions are in millimeters.
- Surface mount product is taped and reeled in accordance with EIA-481.
- Suffix - T250 = 13" Reel - 250 pieces per 12mm tape.
- Marking on Part - marking code (see page 2), date code and logo.

ORDERING INFORMATION

BASE PART NUMBER (Voltage = xx)	LEADFREE SUFFIX	TAPE SUFFIX	QTY/REEL	REEL SIZE	TUBE QTY
PDTVSxxCA	N/A	-T250	250	13"	N/A

This device is only available in a Lead-Free configuration.

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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