



Features

- 15 kA, 8/20 μ s surge capability
- Low clamping voltage under surge
- Bidirectional TVS
- UL Recognized 
- RoHS compliant*

Applications

- AC line protection
- High power DC bus protection

PTVS15-xxxC-TH Series High Current TVS Diodes

General Information

The PTVS15-xxxC-TH range of high current bidirectional TVS diodes is designed for use in AC line protection and high power DC bus clamping applications. These devices offer bidirectional port protection from 58 volts to 76 volts.

The devices are RoHS* compliant and UL Recognized. They also meet IEC 61000-4-5 8/20 μ s current surge requirements.



Additional Information

Click these links for more information:



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Agency Approval

Description	
UL	File Number: E313168

Absolute Maximum Ratings (@ $T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

Rating	Symbol	Value	Unit
Repetitive Standoff Voltage	PTVS15-058C-TH PTVS15-076C-TH V_{WM}	58 76	V
Peak Current Rating per 8/20 μ s IEC 61000-4-5	I_{PPM}	15	kA
Operating Junction Temperature Range	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_S	-55 to +150	$^\circ\text{C}$
Lead Temperature, Soldering (10 s)		260	$^\circ\text{C}$

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ Unless Otherwise Noted)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_D Standby Current	$V_D = V_{WM}$			10	μA
$V_{(BR)}$ Breakdown Voltage	$I_{BR} = 10\text{ mA}$	PTVS15-058C-TH 64 PTVS15-076C-TH 85	66 92	70 95	V
V_C Clamping Voltage (1)	$I_{PP} = 15\text{ kA}$	PTVS15-058C-TH PTVS15-076C-TH		110 150	V
$V_{(BR)}$ Temperature Coefficient			0.1		$\% / ^\circ\text{C}$
C Capacitance	$F = 10\text{ kHz}$, $V_d = 1\text{ Vrms}$	PTVS15-058C-TH PTVS15-076C-TH	12 9		nF

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

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Asia-Pacific: Tel: +886-2 2562-4117 • Email: asiacus@bourns.com

Europe: Tel: +36 88 885 877 • Email: eurocus@bourns.com

Mexico: Tel: +52 614 478 0400 • Email: mexicus@bourns.com

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WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex.

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

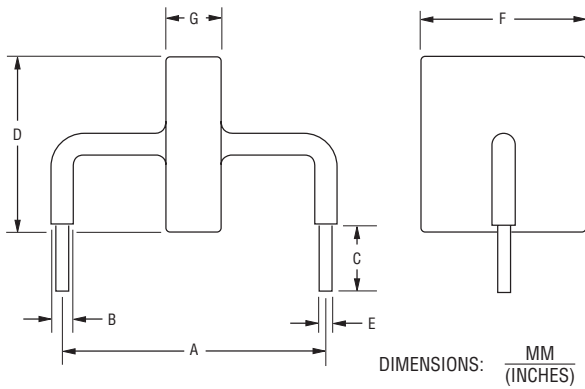
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PTVS15-xxxC-TH Series High Current TVS Diodes

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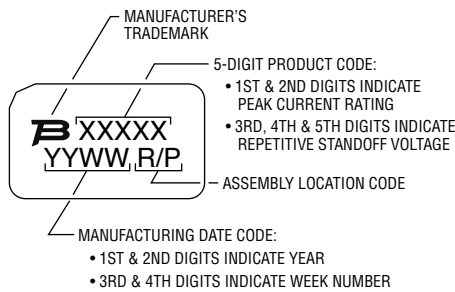
Product Dimensions

This is an RoHS compliant product, with epoxy encapsulations meeting UL Class 94V-0. Ag plated leads meet solderability requirements of JESD22-B102. Package dimensions are shown below.

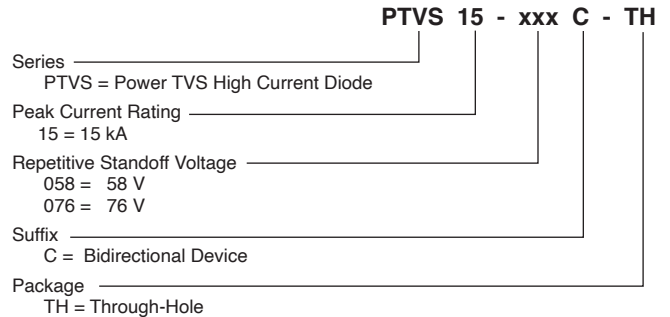


Dim.	PTVS15-058C-TH	PTVS15-076C-TH
A	24.15 ± 0.72 (0.951 ± 0.028)	
B	2.40 ± 0.50 (0.094 ± 0.020)	
C	6.00 ± 1.00 (0.236 ± 0.039)	
D	17.50 (0.689) Max.	
E	1.25 ± 0.05 (0.049 ± 0.002)	
F	16.00 (0.63) Max.	
G	5.00 (0.197) Max.	6.00 (0.236) Max.

Typical Part Marking

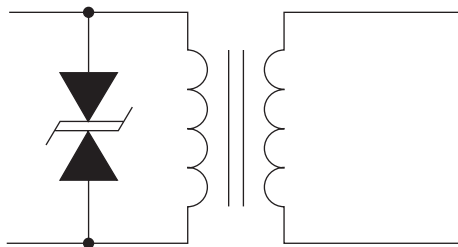


How to Order



Application

A typical application for Power TVS products includes AC power line primary protection.



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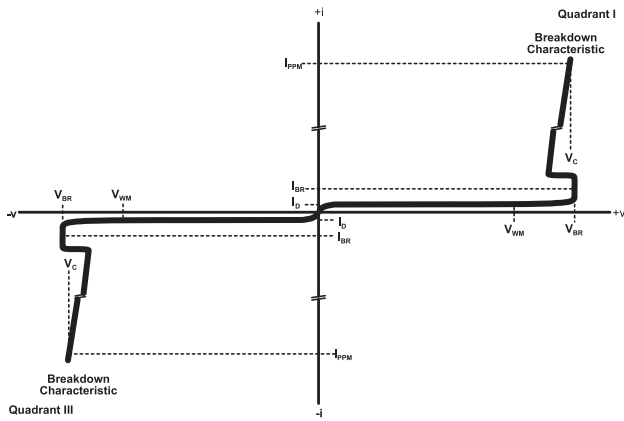
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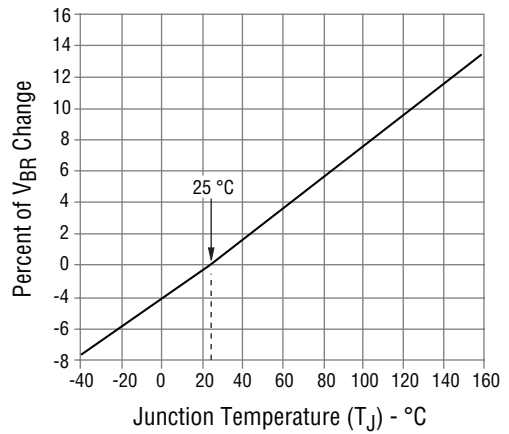
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Performance Graphs

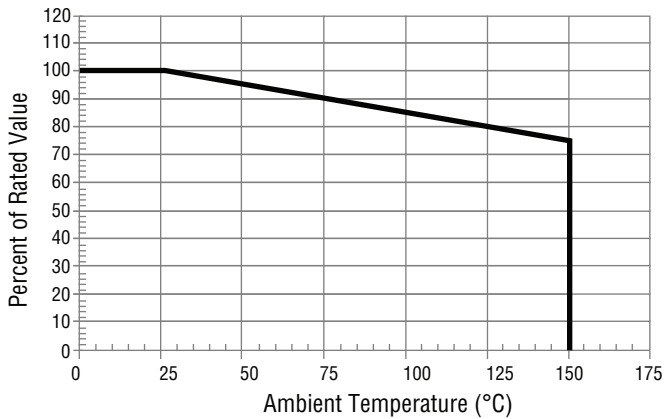
V-I Characteristic



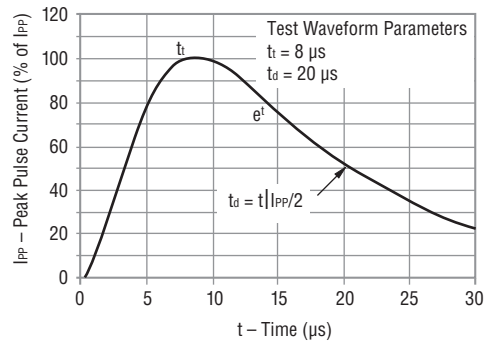
Typical V_{BR} vs. Junction Temperature



Typical Surge Current Derating



Current 8/20 μs Waveform per IEC 61000-4-5



REV. 05/24

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