



Features

- Bidirectional TVS 5 V
- Low capacitance 15 pF
- ESD protection >15k V
- Fits 0402 footprint



This series is obsolete and not recommended for new designs.

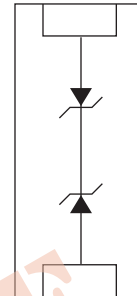
CDDFN2-T4.7C – Surface Mount TVS Diode

General Information

The CDDFN2-T4.7C device provides ESD and EFT protection for external ports of electronic devices such as cellular phones, handheld electronics and other portable electronic devices.

The device measures 1.05 mm x 0.65 mm and is available in a DFN-2 package intended to be mounted directly onto an FR4 printed circuit board. The device will fit an 0402 footprint.

The device will meet IEC 61000-4-2 (ESD) and IEC 61000-4-4 (EFT) protection requirements.



Electrical & Thermal Characteristics (@ T_A = 25 °C Unless Otherwise Noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Peak Pulse Power @ 8/20 μ s ¹	P _{PK}			75	W
Peak Pulse Current @ 8/20 μ s	I _{pp}			5	A
Operating Temperature	T _{OPR}	-40	25	125	°C
Storage Temperature	T _{STG}	-55	25	150	°C

Parameter	Symbol	Min.	Typ.	Max.	Unit
Working Peak Voltage	V _{WM}		5.0		V
Breakdown Voltage @ 1 mA	V _{BR}	5.1	7.0		V
Leaking Current @ 5 V	I _L		0.1	2.0	μ A
Capacitance @ 0 V, 1 MHz	C _J		15	20	pF
Clamping Voltage @ I _{pp} = 5 A 8/20 μ s	V _C			15	V
ESD Protection per IEC 61000-4-2 Contact Discharge	ESD	8			kV
Air Discharge	ESD	15			kV
EFT Protection per IEC 61000-4-4 @ 5/50 ns	EFT			40	A
Surge Protection per IEC 61000-4-5 @ 8/20 μ s	Surge			5	A

Notes:

1. See Peak Pulse Power vs. Pulse Time.



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.

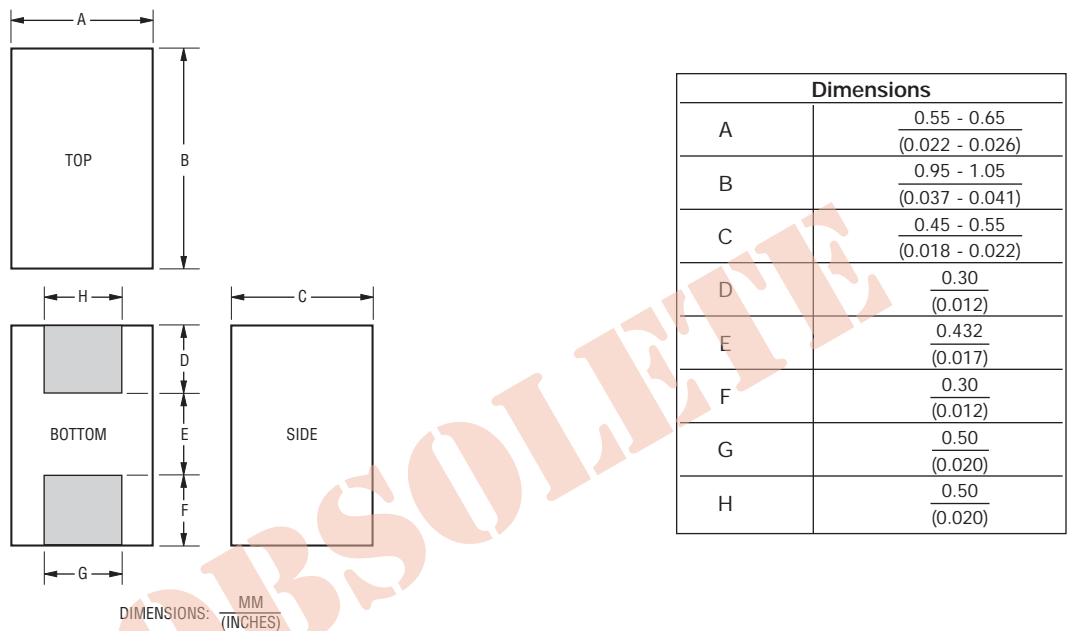
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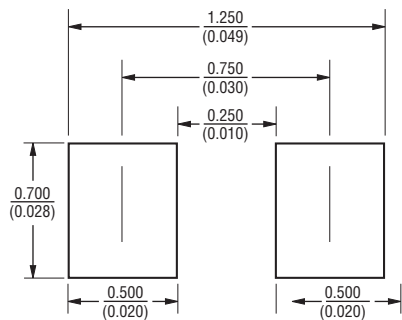
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Product Dimensions

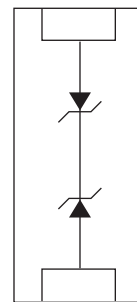
This is a Molded DFN-2 package with lead free 100 % Sn plating on the terminations. It weighs approximately 30 mg.



Recommended PCB Footprint



Block Diagram



Typical Part Marking

CDDFN2-T4.7CE5

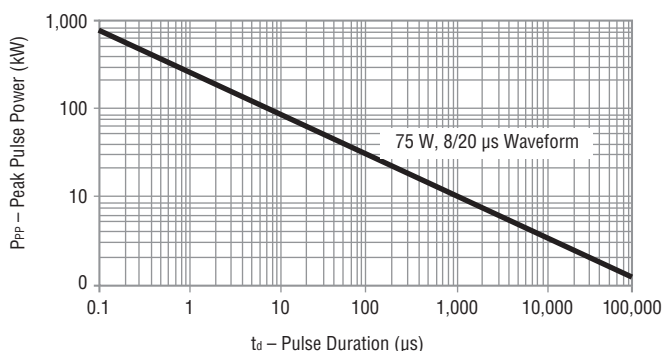
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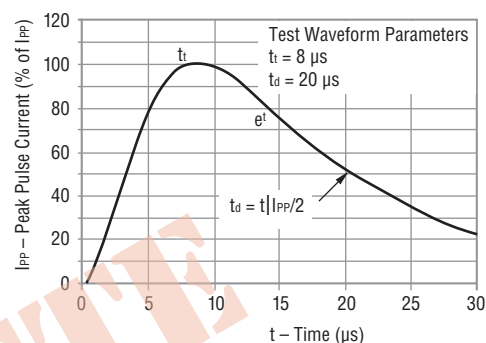
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Performance Graphs

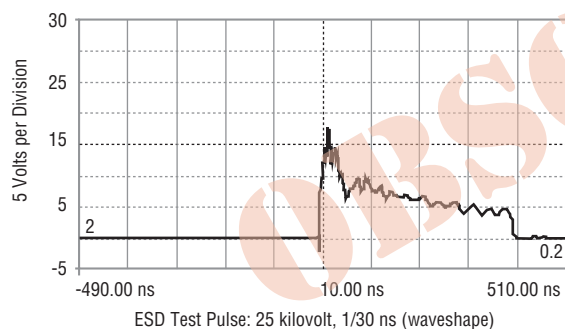
Peak Pulse Power vs Pulse Time



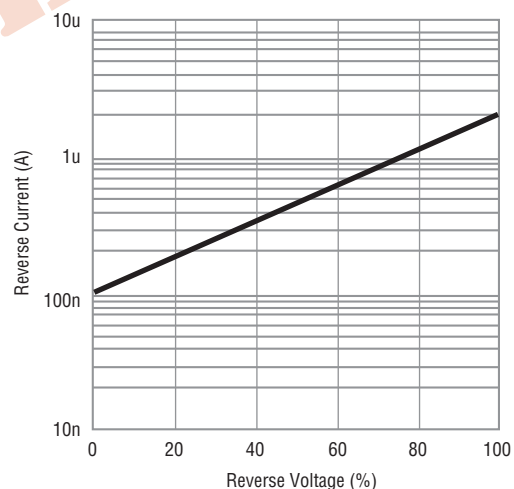
Pulse Wave Form



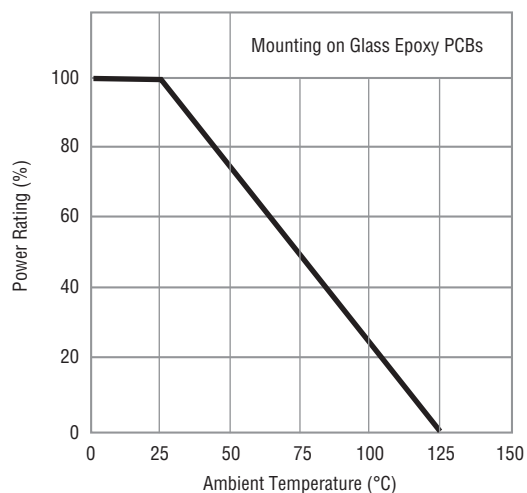
Overshoot & Clamping voltage



Reverse Characteristics



Power Derating Curve



How To Order

Common Code CD DFN2 - T 4.7 C
 Chip Diode
 Package DFN2 = DFN-2 Package
 Model T = Transient Voltage Suppressor
 Working Peak Reverse Voltage 4.7 = 4.7 V_{RRM} (Volts)
 Suffix C = Bidirectional Diode

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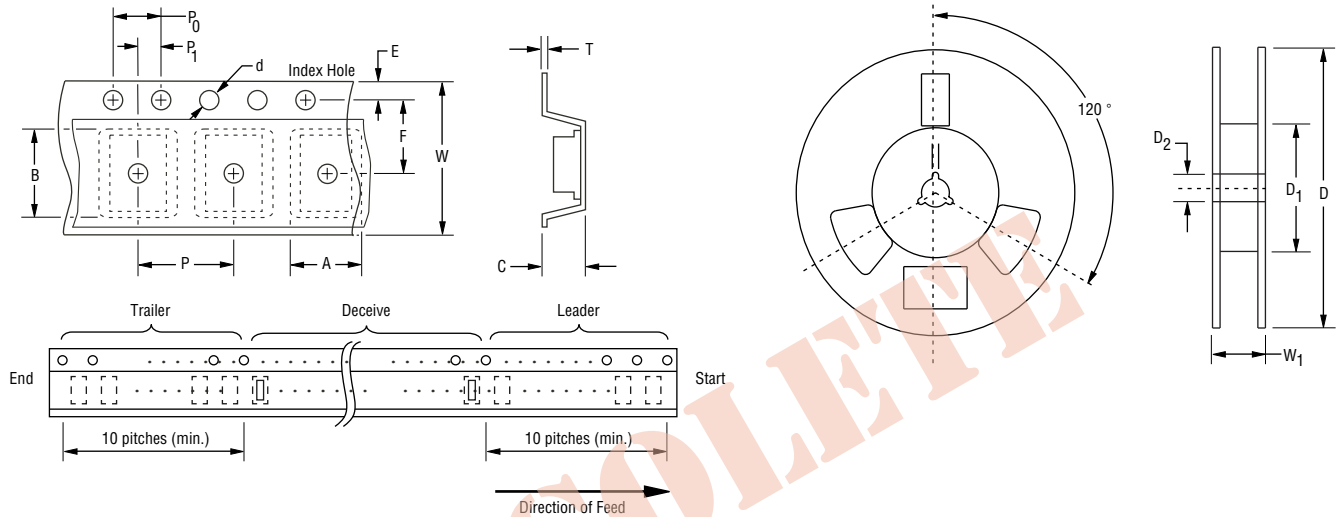
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CDDFN2-T4.7C – Surface Mount TVS Diode

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Packaging Information

The surface mount product is packaged in an 8 mm x 4 mm tape and reel format per EIA-481 standard.



Item	Symbol	DFN-2
Carrier Width	A	0.80 ± 0.10 (0.031 - 0.004)
Carrier Length	B	1.20 ± 0.10 (0.047 - 0.004)
Carrier Depth	C	0.70 ± 0.10 (0.027 - 0.004)
Sprocket Hole	d	1.55 ± 0.05 (0.061 - 0.002)
Reel Outside Diameter	D	178 (7.008)
Reel Inner Diameter	D1	50.0 (1.969) Min.
Feed Hole Diameter	D2	13.0 ± 0.20 (0.512 - 0.008)
Sprocket Hole Position	E	1.75 ± 0.10 (0.069 - 0.004)
Punch Hole Position	F	3.50 ± 0.05 (0.138 - 0.002)
Punch Hole Pitch	P	4.00 ± 0.10 (0.157 - 0.004)
Sprocket Hole Pitch	P0	4.00 ± 0.10 (0.157 - 0.004)
Embossment Center	P1	2.00 ± 0.05 (0.079 - 0.002)
Overall Tape Thickness	T	0.20 ± 0.10 (0.008 - 0.004)
Tape Width	W	8.00 ± 0.20 (0.315 - 0.008)
Reel Width	W1	14.4 (0.567) Max.
Quantity per Reel	—	5,000

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