

DFN0603 Transient Voltage Suppressors ESD Protection Diode

Green Product



DFN0603 Package



ELECTRICAL SYMBOL

Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted


Symbol	Parameter	Value	Units
PD	Total Power Dissipation on FR-5 Broad	150	mW
T_L	Max Lead Solder Temperature range (10 Second Duration)	260	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
T_J	Junction Temperature	+150	$^\circ\text{C}$
ESD	IEC61000-4-2 Air Discharge Contact Discharge	± 15 ± 8	KV
EFT	IEC61000-4-4	40	A
ESD	Per Human Body Model	16	KV

These ratings are limiting values above which the serviceability of the diode may be impaired.

Specification Features:

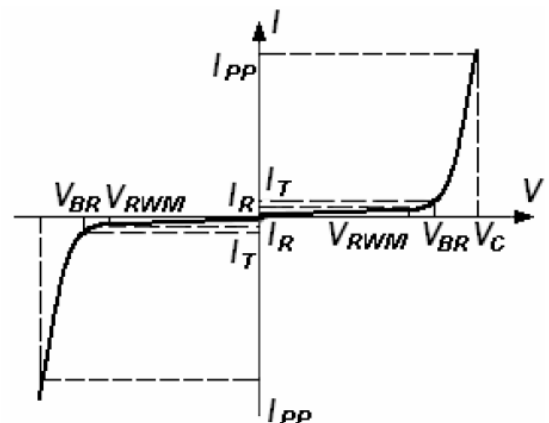
- Capacitance Typ. 15pF
- Small Body Outline Dimensions
- Low Leakage Current
- Response Time is Typically < 1ns
- ESD Rating of Class 3 (>16kV) per Human Body Model
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Weight: approx. 0.24mg

DEVICE MARKING CODES:

Device Type	Marking	Shipping
ESD11D5V0C		10,000/Reel

Electrical Parameter

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T



Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Device Type	V_{RWM} (Volts)	$I_R @ V_{RWM}$ (μA)	$V_{BR} @ I_T$ (Note 1) (Volts)		I_T (mA)	$V_C @ I_{PP}^* = 1\text{A}$ (Volts)	$V_C @ \text{Max } I_{PP}$ (Volts)	Max I_{PP}^* (A)	C @ $V_R = 0\text{V}, f = 1\text{MHz}$ (pF)
	Max	Max	Min	Max		Max	Max		Typ.
ESD11D5V0C	5.0	0.5	5.6	---	1.0	9.8	12.5	5.5	15

* Surge current waveform per Figure 1.

Note 1: V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C .

SURGE CURRENT WAVEFORM:

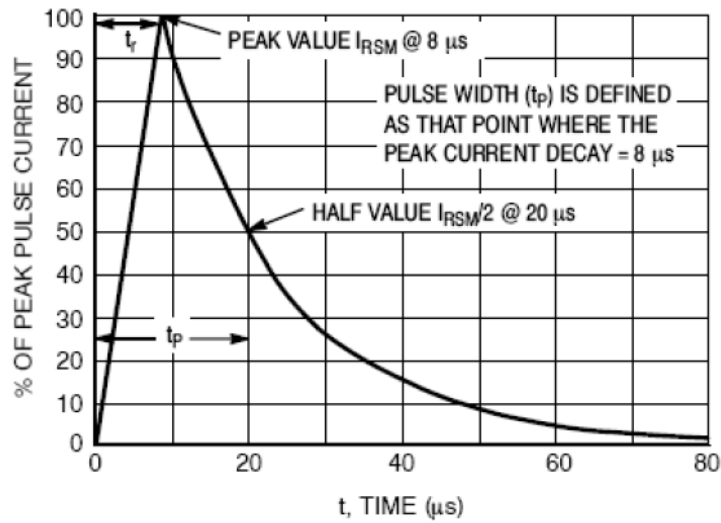
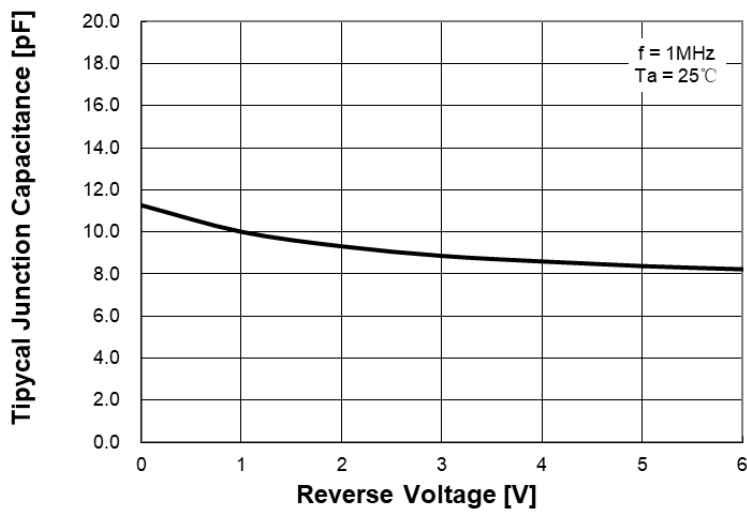
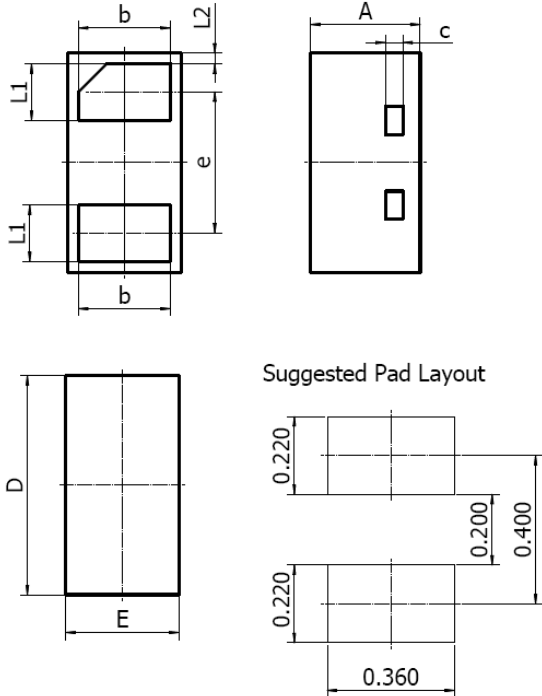


Figure 1. 8 x 20 μs Pulse Waveform

CAPACITANCE CURVE:



DFN0603 Package Outline


DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.27	0.35	0.011	0.013
D	0.57	0.67	0.022	0.026
E	0.27	0.37	0.011	0.015
b	0.225	0.295	0.009	0.012
c	0.050REF		0.002REF	
e	0.365	0.435	0.014	0.017
L1	0.125	0.195	0.005	0.008
L2	0.030REF		0.001REF	

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