

DFN0603

Transient Voltage Suppressors

ESD Protection Diode

Green Product



DFN0603 Package



ELECTRICAL SYMBOL

Absolute Maximum Ratings T_A = 25°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	°C
T _{stg}	Storage Temperature Range	-55 to +150	°C
T _J	Junction Temperature	+150	°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:

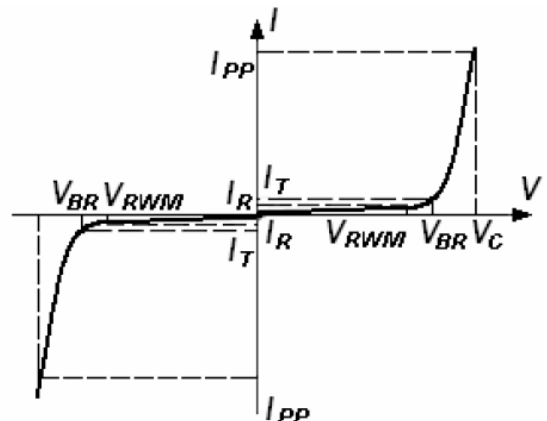
- Capacitance Typ. 15pF
- Small Body Outline Dimensions
- Low Leakage Current
- Response Time is Typically < 1ns
- ESD Rating of Class 3 (>16kV) per Human Body Model
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish
- Weight: approx. 0.24mg

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 .

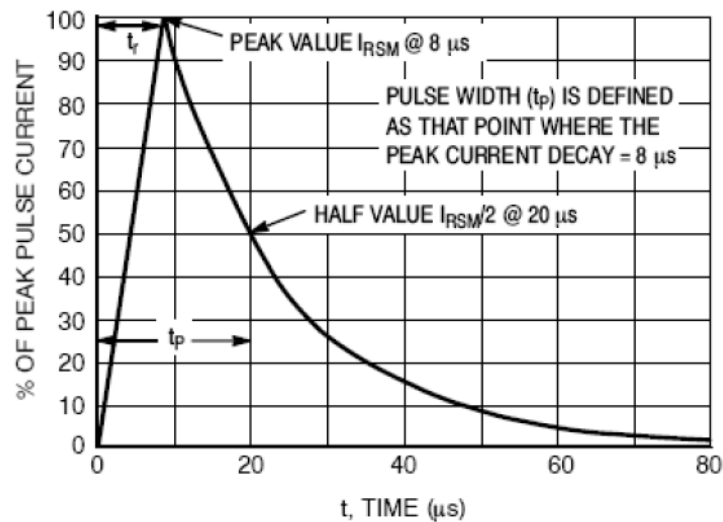
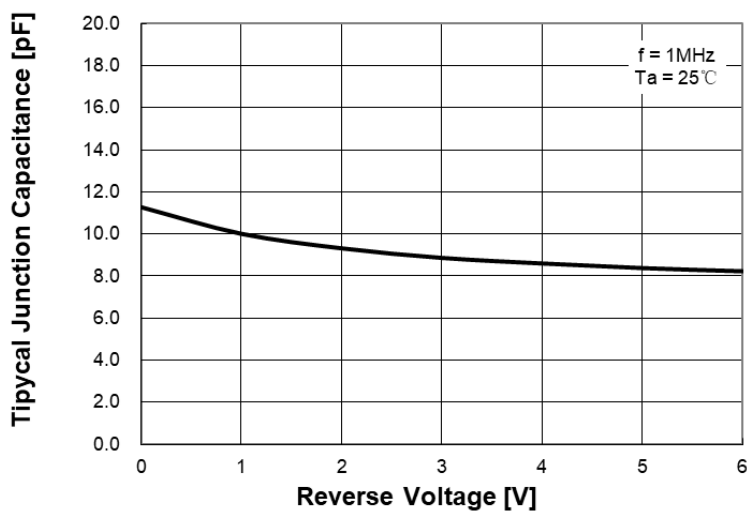
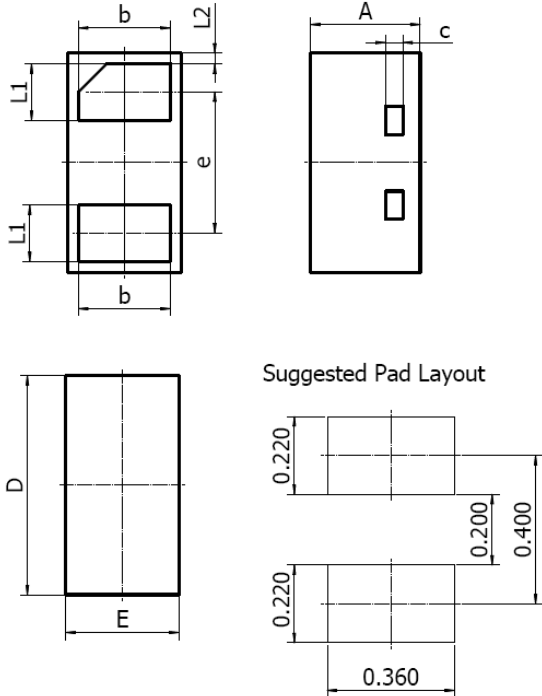
SURGE CURRENT WAVEFORM:


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	

NOTICE

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Tak Cheong Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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