



ESD PROTECTION DIODE

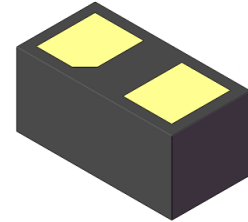
Applications

- ◆ Cellular phones audio
- ◆ MP3 players
- ◆ Digital cameras
- ◆ Portable applications
- ◆ mobile telephone

Features

- ◆ Small Body Outline Dimensions:
0.61mm x 0.31 mm
- ◆ Low Body Height: 0.28 mm
- ◆ Low Leakage
- ◆ Response Time is Typically < 1 ns
- ◆ ESD Rating of Class 3 (> 16 kV) per Human Body Model
- ◆ IEC61000-4-2 Level 4 ESD Protection
- ◆ These are Pb-Free Devices
- ◆ We declare that the material of product compliance with RoHS requirements.

DFN0603-D



PIN CONFIGURATION



MAXIMUM RATINGS(Ta = 25°C)			
Rating	Symbol	Value	Unit
IEC61000-4-2 (ESD)	air discharge	±15	KV
	contact discharge	±8	
ESD Voltage	Per Human Body Model	16	KV
Total Power Dissipation on FR-5 Board (Note 1) @ TA = 25°C	P _D	200	mW
Junction and Storage Temperature Range	T _J ,T _{STG}	-55 to 150	°C
Lead Solder Temperature – Maximum (10 Second Duration)	T _L	260	°C

Stresses exceeding Maximum Ratings may damage the device. Maximum Rating are stress ratings only.

Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

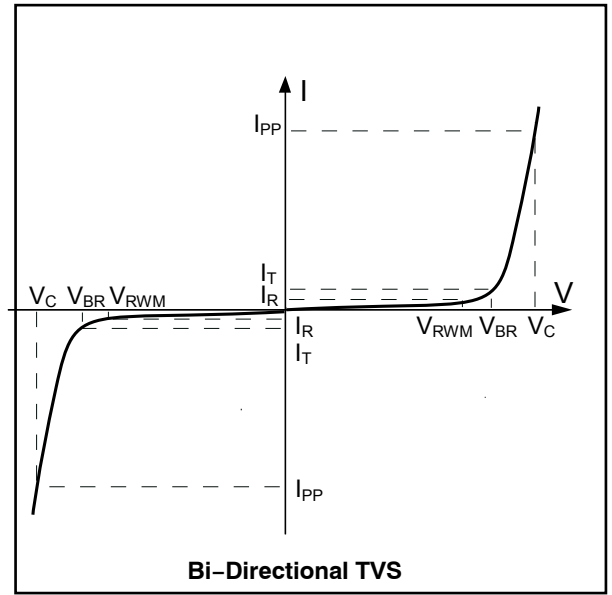
1. FR-5 = 1.0*0.75*0.62 in.



ELECTRICAL CHARACTERISTICS

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

Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
P_{PP}	Peak Pulse Power
C_J	Junction Capacitance
I_F	Forward Current
V_F	Forward Voltage @ I_F



ELECTRICAL CHARACTERISTICS

Device	V_{RWM} (V) (max.)	$I_{R1}(\mu\text{A})$ @ V_{RWM} (max.)	$I_{R2}(\mu\text{A})$ @ $V_R=3.5\text{V}$ (max.)	V_{BR} (V) @ I_T (Note 2) (min.)	I_T mA	V_C (V) @ $I_{PP}=1\text{A}$ (max.)	V_C (V) @ $\text{MAX } I_{PP}$ (max.)	PPK(W) (Note 3) Max	C (pF) (max.)
ESD2D5VB1S060L	5.0	0.5	0.3	5.6	1.0	9.8	12.5	69	15

Other voltage available upon request.

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

3. Surge current waveform per Figure 3.

Fig1. ESD Clamping Voltage Screenshot Positive 8 kV Contact per IEC61000-4-2

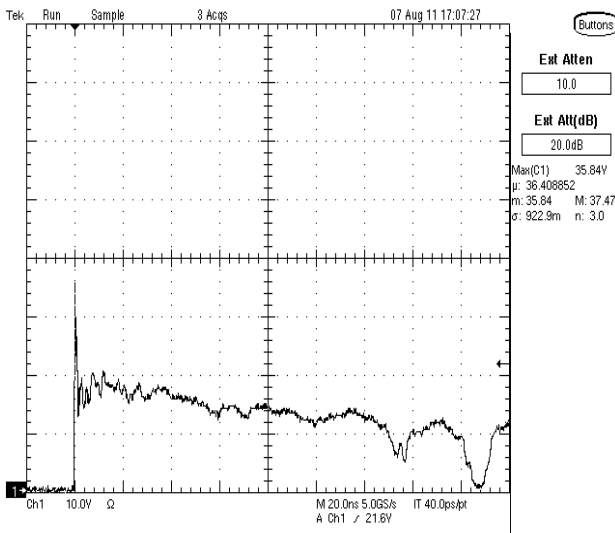


Fig2. ESD Clamping Voltage Screenshot Negative 8 kV Contact per IEC61000-4-2

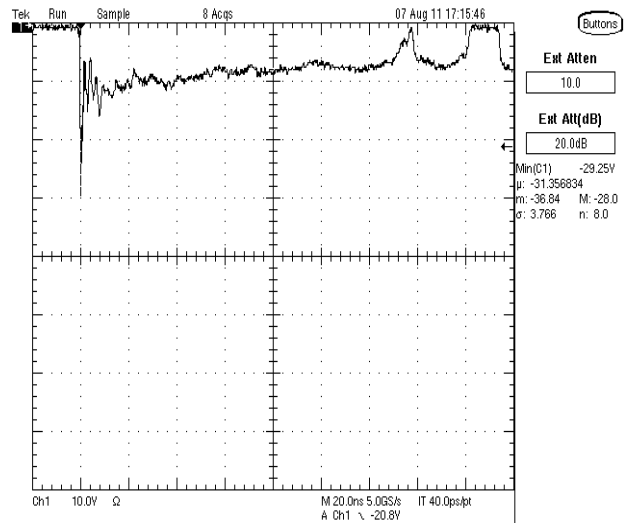
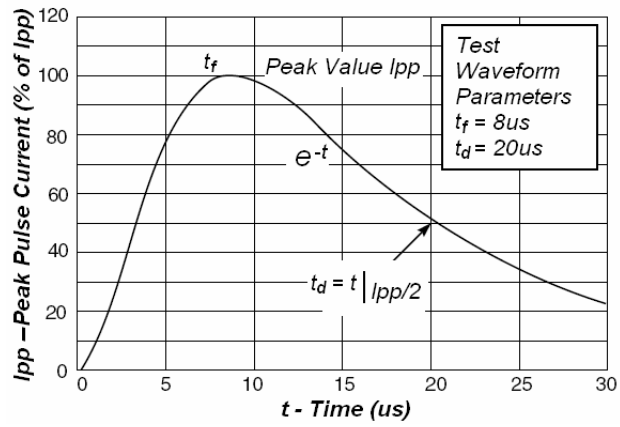




Fig3. Pulse Waveform

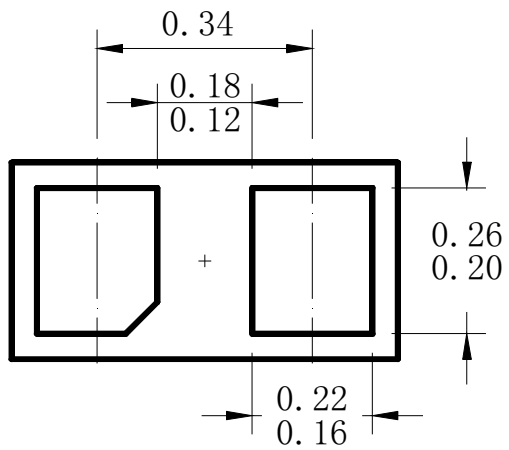
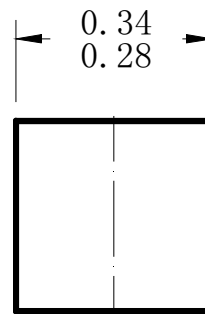
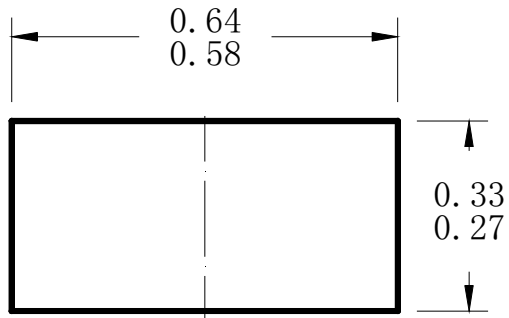




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DIMENSION OUTLINE:

Unit:mm



Soldering Footprint

