

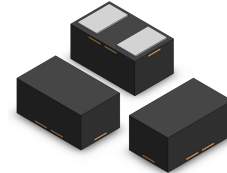
Transient Voltage Suppressors for ESD Protection

SE03N2B01GH

Features

- ◆ Working voltage: 3.3V
- ◆ Low capacitance: 0.3pF (Typical)
- ◆ Low leakage current: 0.2 μ A @ V_{RWM}
- ◆ Low clamping voltage
- ◆ Response Time is < 1 ns

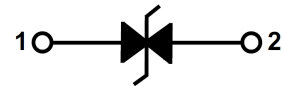
DFN0603



Applications

- ◆ Cell Phone Handsets and Accessories
- ◆ Portable Instrumentation
- ◆ Notebooks, Desktops, and Servers
- ◆ Digital Cameras MDDI Ports

Functional Diagram



Mechanical Characteristics

- ◆ DFN0603-2L Package
- ◆ Molding Compound Flammability Rating: UL 94V-0
- ◆ Quantity Per Reel: 10,000pcs
- ◆ Reel Size: 7 inch

Absolute Maximum Rating

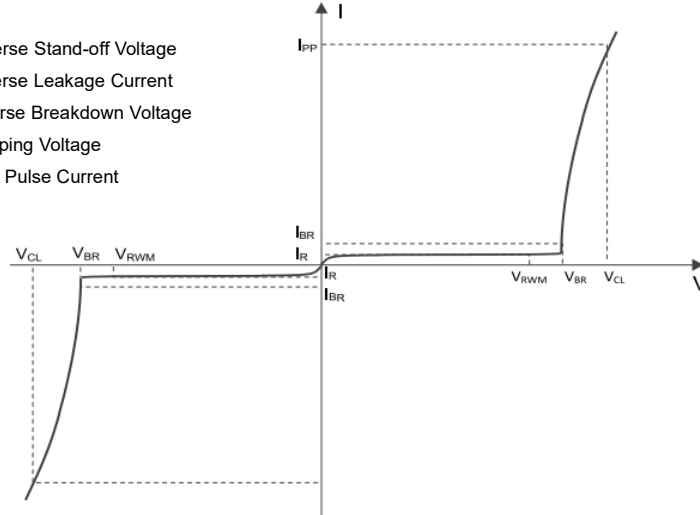
Symbol	Parameter	Value	Units
T_{LST}	Lead Soldering Temperature	260 (10 sec.)	$^{\circ}$ C
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}$ C
T_{OPT}	Operating Temperature Range	-40 to +125	$^{\circ}$ C
V_{ESD}	ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2 (Contact)	± 30 ± 30	KV

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I-V Curve Characteristics

V_{RWM} Reverse Stand-off Voltage
 I_R Reverse Leakage Current
 V_{BR} Reverse Breakdown Voltage
 V_{CL} Clamping Voltage
 I_{PP} Peak Pulse Current



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

Symbol	Test Condition	Minimum	Typical	Maximum	Units
V_{RWM}	--	--	--	3.3	V
I_R	$V_{RWM}=3.3\text{V}$, $T=25^\circ\text{C}$	--	--	0.2	μA
V_{BR}	$I_T = 1\text{mA}$	4.2	--	--	V
V_C	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$	--	12	--	V
V_C	$I_{PP}=4\text{A}$, $t_p=8/20\mu\text{s}$	--	20	--	V
C_J	$V_R=0\text{V}$, $f=1\text{MHz}$	--	0.3	--	pF

Characteristic Curves

Fig1. 8/20 μs Pulse Waveform

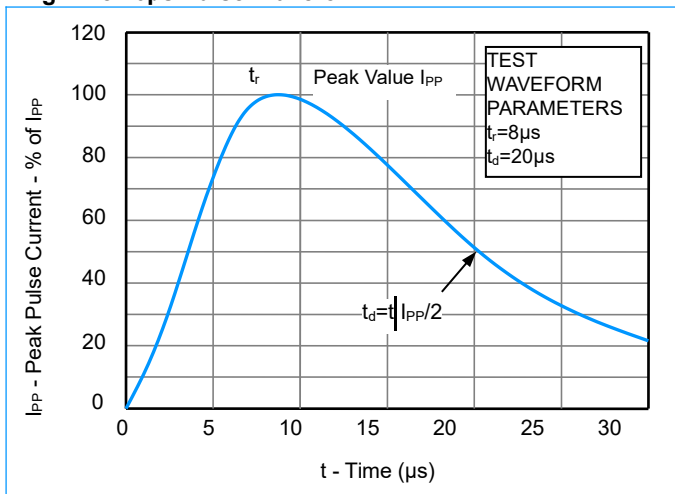
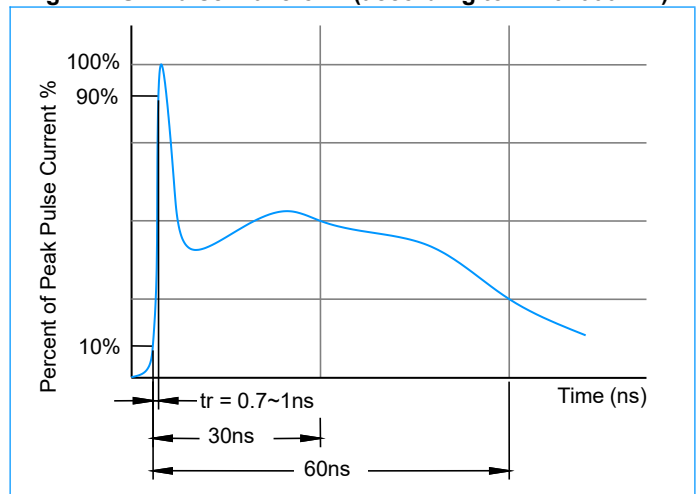


Fig2. ESD Pulse Waveform (according to IEC61000-4-2)



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Characteristic Curves (Continue)

Fig3. Clamped +8 kV ESD Voltage Waveform

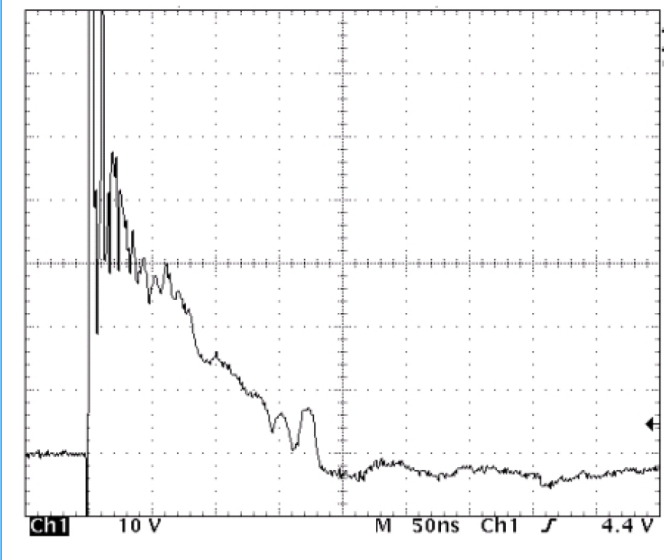
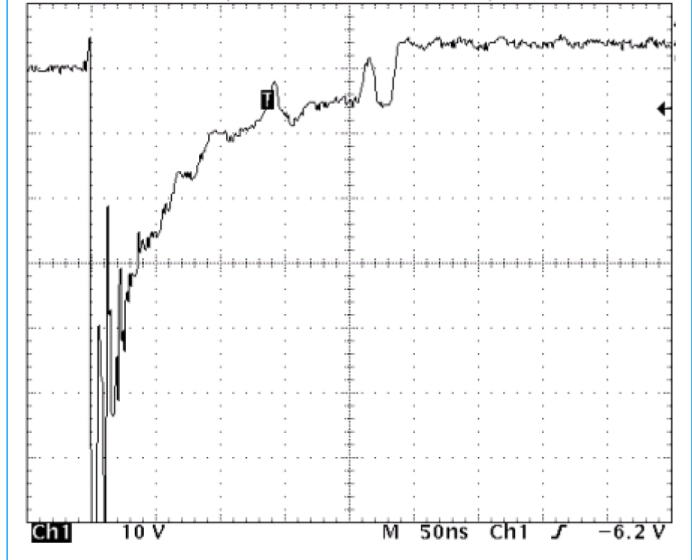
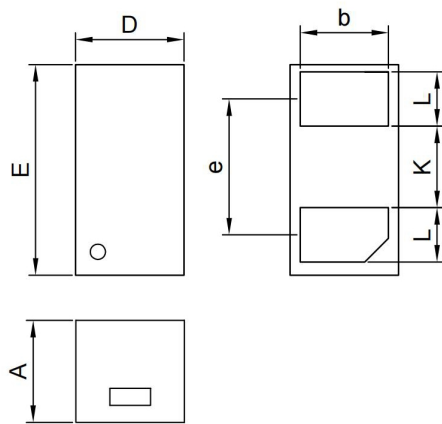


Fig4. Clamped -8 kV ESD Voltage Waveform



DFN0603-2L Package Outline & Dimensions



DIM	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	0.30	0.32	0.35	0.0106	0.0125	0.0137
b	0.22	0.22	0.26	0.0086	0.0086	0.0102
D	0.27	0.30	0.33	0.0106	0.0118	0.0129
e	0.40 BSC			0.0157 BSC		
E	0.57	0.60	0.63	0.0224	0.0236	0.0248
L	0.14	0.16	0.18	0.0055	0.0062	0.0070
K	0.20	0.24	0.25	0.0078	0.0094	0.0098

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