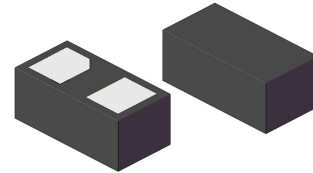


Features

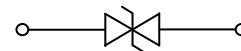
- 40 Watts peak pulse power ($t_p = 8/20\mu s$)
- DFN0603-X1 (0201) package
- Bidirectional configurations
- SCR technology
- Low clamping voltage
- Low leakage current
- Low capacitance ($C_j=2.7pF$ typ.)
- Protection one data/power line to:
 - IEC 61000-4-2 $\pm 10kV$ contact $\pm 15kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 3.5A (8/20 μs)
- RoHS compliant



DFN0603-X1
(0201)

Applications

- Audio Line, Speaker, Headset, Microphone Protection
- Human Interface Devices (Keyboard, Touchpad, Buttons)
- USB2.0 Protection



Schematic Diagram

Absolute Maximum Ratings ($T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_p=8/20\mu s$)	P_{PP}	40	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	10/15	kV
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	3.5	A
Junction Temperature	T_J	-55 to +125	$^\circ C$
Storage temperature	T_{STG}	-55 to +150	$^\circ C$

Electrical Characteristics ($T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}	-	-	-	5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	5.5	6.5	-	V
Reverse Leakage Current	I_R	$V_R=5.0V$	-	5	100	nA
Clamping Voltage (IEC 61000-4-5)	V_C	$I_{PP}=3.5A$	-	-	11.5	V
Trigger Voltage (IEC 61000-4-2)	V_T	$V_{ESD}=8kV$	-	50	-	V
Clamping Voltage (IEC 61000-4-2)	V_C	$V_{ESD}=8kV$	-	10	-	V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$	-	2.7	3.5	pF

Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

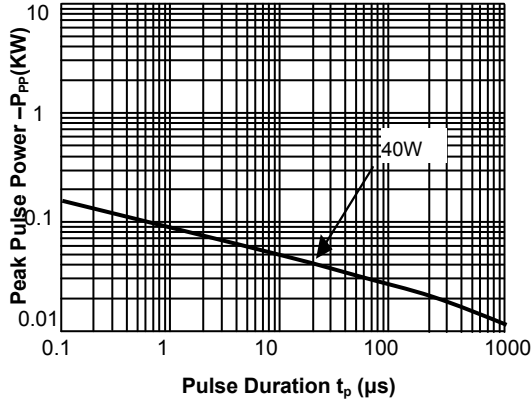


Fig.2 Pulse Derating Curve

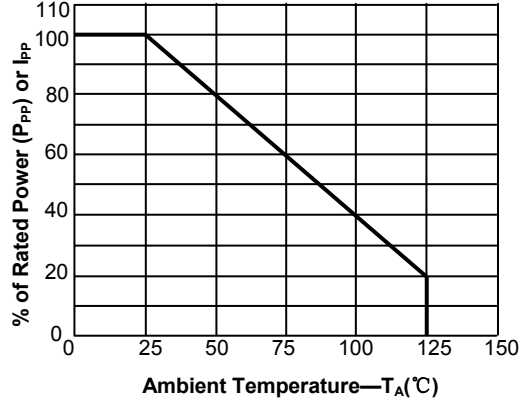


Fig.3 Pulse Waveform-8/20 μs

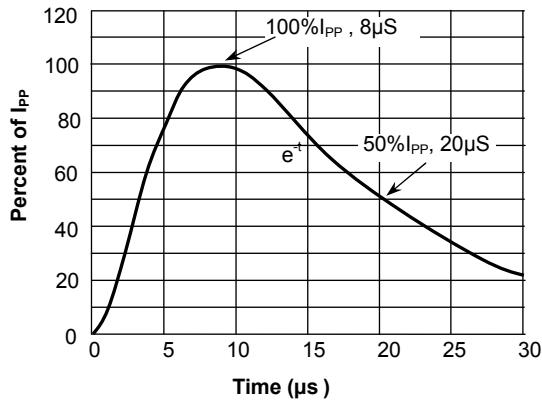


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

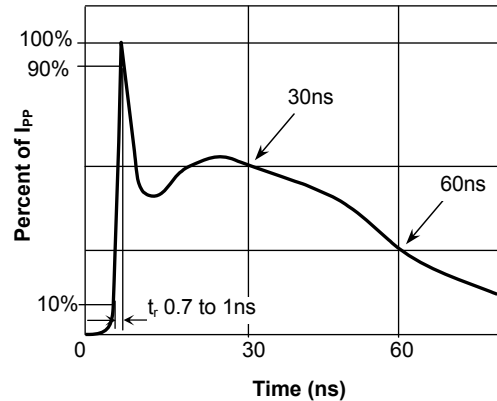


Fig.5 IEC61000-4-2 +8kV Contact Discharge

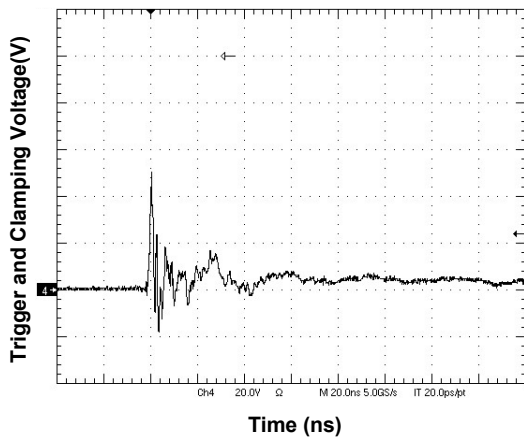
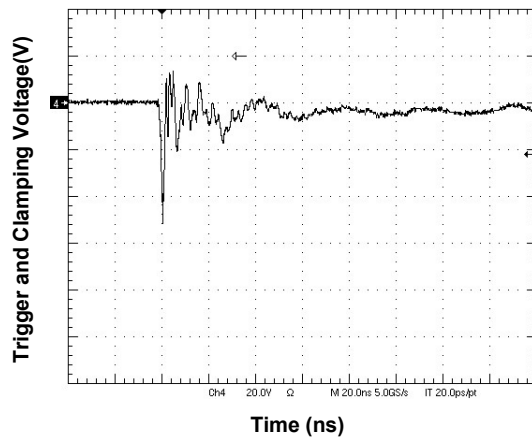
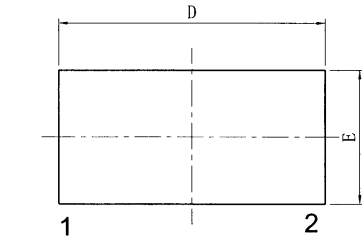


Fig.6 IEC61000-4-2 -8kV Contact Discharge

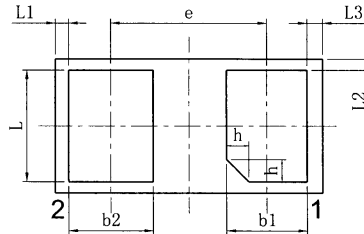


Product Dimensions

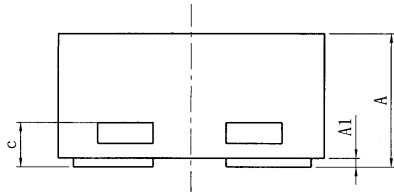
DFN0603-X1 (0201)



TOP VIEW



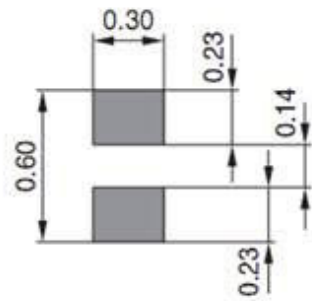
BOTTOM VIEW



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.28	0.30	0.32
A1	0	0.02	0.05
b1	0.13	0.18	0.23
b2	0.14	0.19	0.24
c	0.05	0.10	0.15
D	0.55	0.60	0.65
e	0.35BSC		
L1	0.030BSC		
L3	0.035BSC		
L2	0.025BSC		
E	0.25	0.30	0.35
L	0.20	0.25	0.30
h	0	0.05	0.10

Recommended Footprint

Unit: mm



Marking



Order Information

Device	Package	Carrier	Quantity	HSF Status
SPESLC5VD0603-2B	DFN0603-X1	Tape & Reel	15000pcs / Reel	RoHS compliant