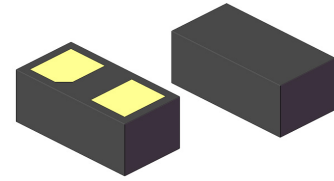
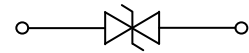


Features

- 70W peak pulse power ($t_p = 8/20\mu s$)
- DFN0603 (0201) package
- Bidirectional configuration
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Medium capacitance ($C_J=12pF$ typ.)
- Protection one data/power line to:
 - IEC 61000-4-2 $\pm 30kV$ contact $\pm 30kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 7A (8/20 μs)
- RoHS compliant



DFN0603-X3



Schematic Diagram

Applications

- Audio Lines, Speakers, Headsets, Microphone Protection
- Human Interface Devices (Keyboards, Touchpads, Buttons)

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}	70	W
ESD Contact/air Discharge (IEC-61000-4-2)	V_{ESD}	30	kV
Peak Pulse Current ($t_p = 8/20\mu S$)	I_{PP}	7	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	mbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}	-	-	-	3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	5.1	5.8	-	V
Reverse Leakage Current	I_R	$V_R=3.3V$	-	0.01	1	μA
Clamping Voltage (IEC 61000-4-5)	V_C	$I_{PP}=1A$	-	6.6	8.0	V
		$I_{PP}=5A$	-	7.0	9.0	V
		$I_{PP}=7A$	-	7.6	10.0	V
Trigger Voltage (steady state)	V_T	-	5.1	-	-	V
Trigger Voltage (IEC 61000-4-2)	V_T	$V_{ESD}=8kV$	-	75	-	V
Clamping Voltage (IEC 61000-4-2)	V_C	$V_{ESD}=8kV$	-	15	-	V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$	-	12	-	pF

Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

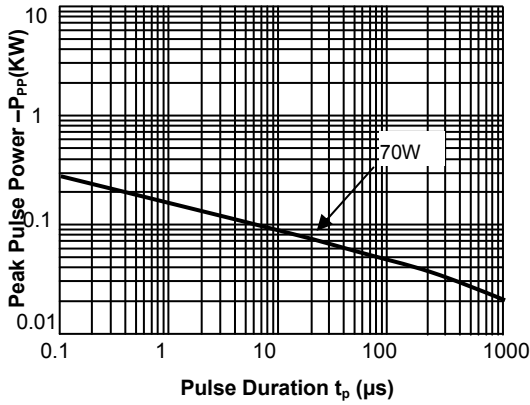


Fig.2 Pulse Derating Curve

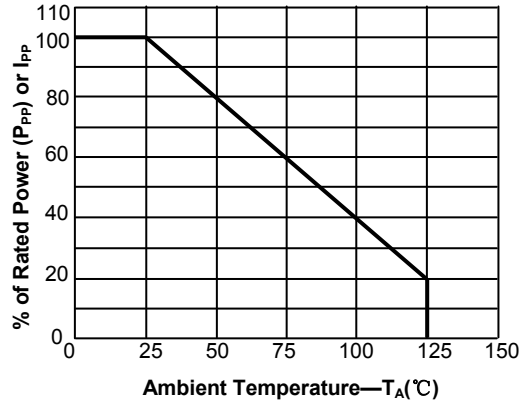


Fig.3 Pulse Waveform-8/20 μs

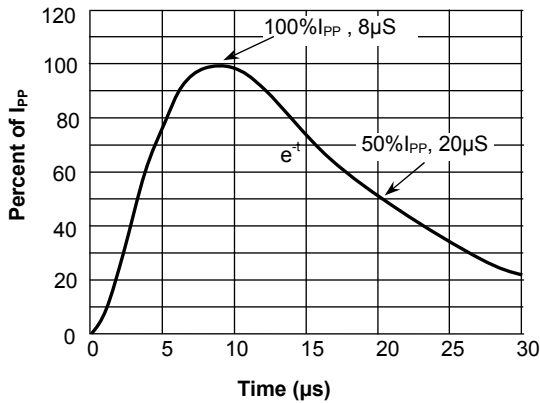
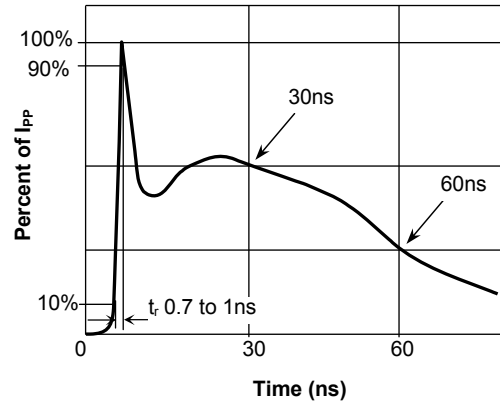
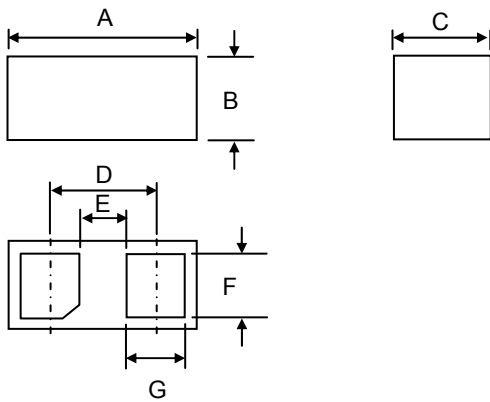


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



Package Outline Dimensions

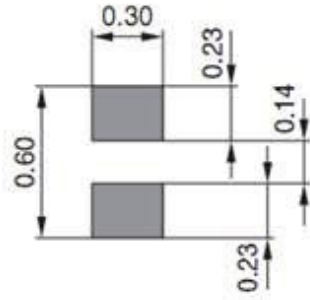


DFN0603-X3 (0201)

Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.585	0.610	0.635
B	0.270	0.290	0.310
C	0.285	0.310	0.335
F	0.210	0.230	0.250
G	0.170	0.190	0.210
D	0.340		
E	0.150		

Recommended Footprint

Unit: mm



Marking



Order Information

Device	Package	Carrier	Quantity	HSF Status
SPES3V3D0603-2B	DFN0603	Tape & Reel	10,000pcs /Reel	RoHS compliant