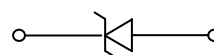


Features

- 120 Watts peak pulse power ($t_p = 8/20\mu s$)
- DFN1006 (0402) package
- Uni-directional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance ($C_j=0.45pF$ typ.)
- Protection one data/power line to:
 - IEC 61000-4-2 $\pm 20kV$ contact $\pm 20kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 6A (8/20 μs)
- RoHS compliant



DFN1006 (0402)



Schematic Diagram

Applications

- Audio Line, Speaker, Headset, Microphone Protection
- Human Interface Devices (Keyboard, Touchpad, Buttons)
- USB2.0, USB3.0, Firewire, DVI, HDMI, S-ATA
- Thunderbolt, Display Port
- Mobile HDMI Link, MDDI, MIPI, SWP / NFC

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}	120	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	20/20	kV
Peak Pulse Current ($t_p = 8/20\mu S$)	I_{PP}	6.0	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}	$I_T=1mA$	6.0	-		V
Reverse Leakage Current	I_R	$V_R=5.0V$	-	-	1	μA
Clamping Voltage (IEC 61000-4-5)	V_C	$I_{PP}=6.0A$	-	16.5	20	V
Trigger Voltage (IEC 61000-4-2)	V_T	$V_{ESD}=8kV$	-	90		V
Clamping Voltage (IEC 61000-4-2)	V_C	$V_{ESD}=8kV$	-	15		V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$	-	0.45	0.65	pF

Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

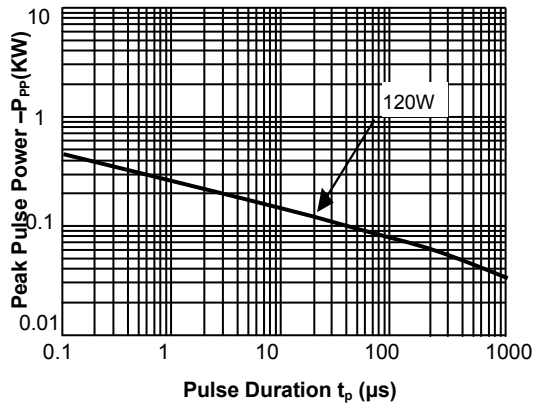


Fig.2 Pulse Derating Curve

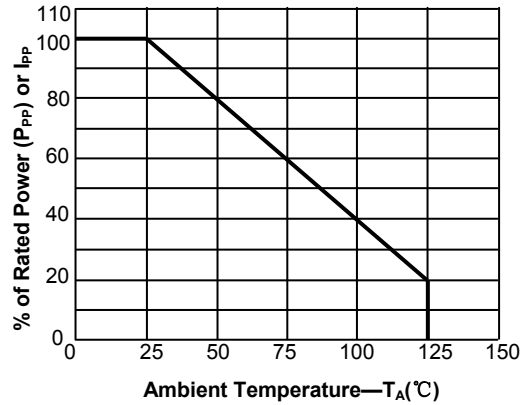


Fig.3 Pulse Waveform-8/20μs

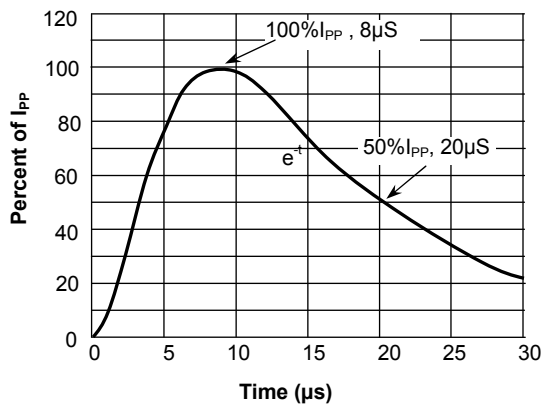
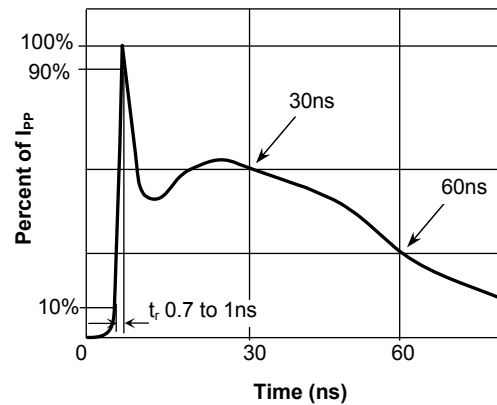
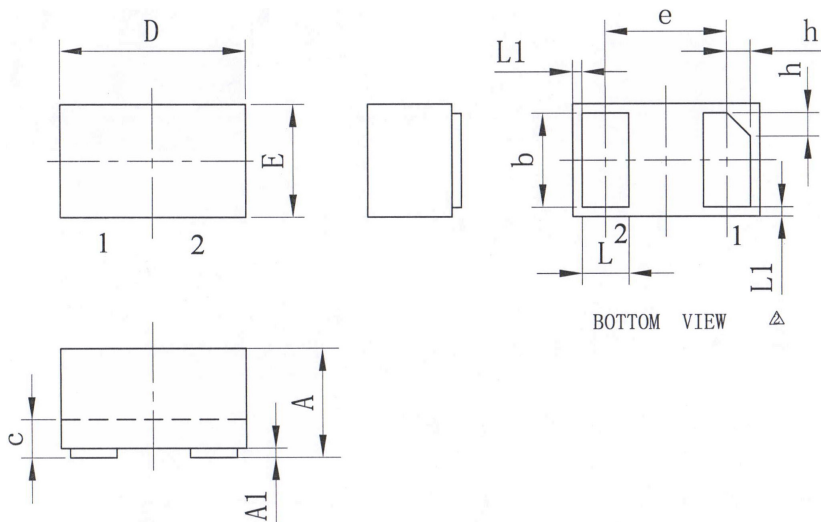


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



Product Dimensions



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0	0.02	0.05
b	0.45	0.50	0.55
c	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05REF		
h	0.07	0.12	0.17
载体尺寸 (M1)	20*20		

Marking



Order Information

Device	Package	Carrier	Quantity	HSF Status
SPESLC5VD1006-2U	DFN1006	Tape & Reel	12000pcs / Reel	RoHS compliant