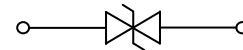**STEIFPOWER** TECHNOLOGY

Features

- 40 Watts peak pulse power (tp = 8/20µs)
- DFN1006 (0402)) package
- Bidirectional configurations
- Low clamping voltage
- Low leakage current
- Low capacitance (Cj=2.7pF typ.)
- Protection one data/power line to:
  - IEC 61000-4-2 ±10kV contact ±15kV air
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
  - IEC 61000-4-5 (Lightning) 3.5A (8/20µs)
- RoHS compliant

DFN1006 (0402)

Applications

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

Schematic Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (T_P=8/20µS)	P_{PP}	40	W
ESD Contact/Air Discharge (IEC-61000-4-2)	V_{ESD}	10/15	kV
Peak Pulse Current (t_P = 8/20µS)	I_{PP}	3.5	A
Junction Temperature	T_J	-55 to +125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	mbol	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	-	80	-	V
Clamping Voltage (IEC 61000-4-2)	V_C	V_{ESD}=8kV	-	12	-	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	-	2.7	3.5	pF

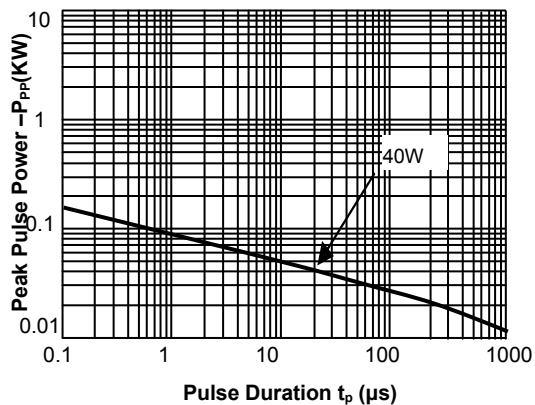## Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve
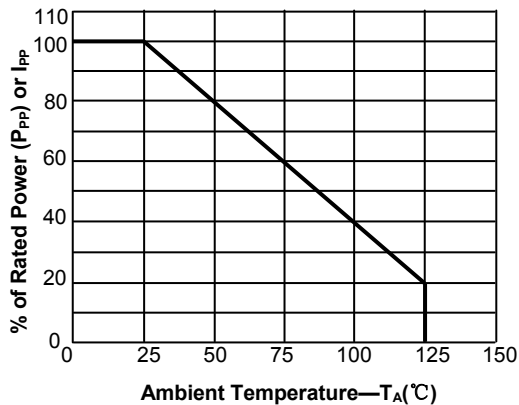

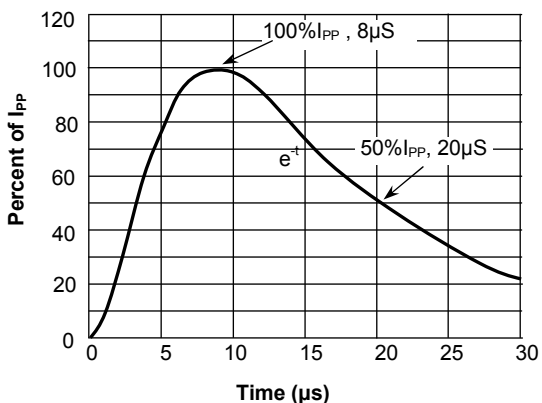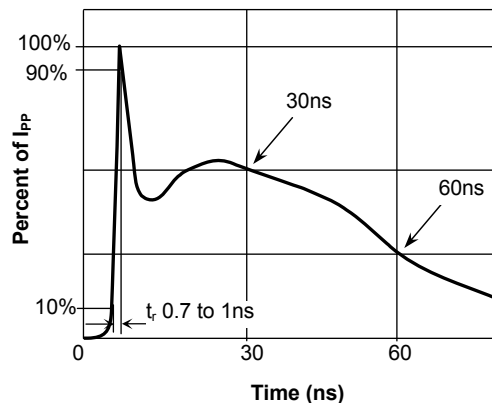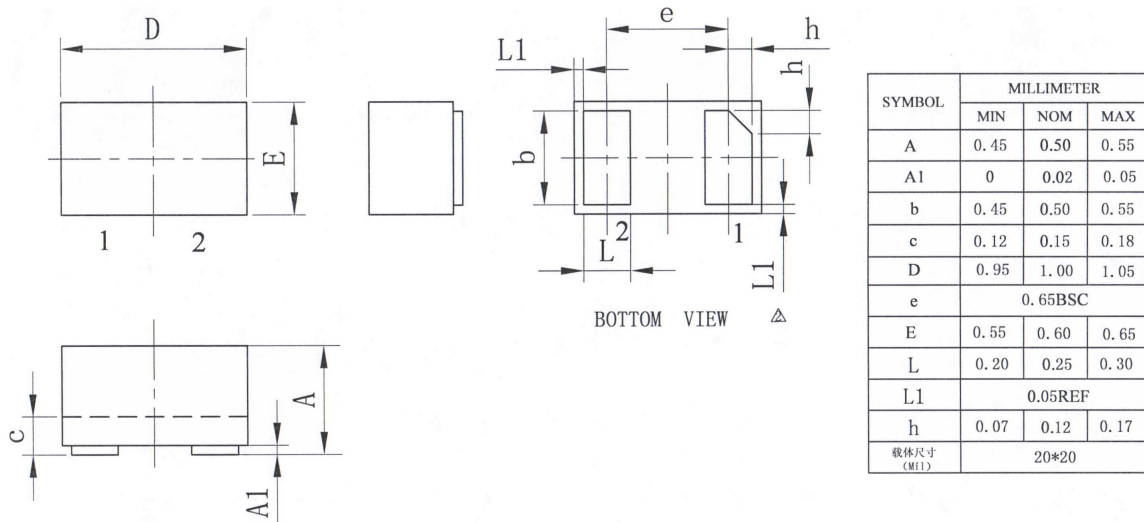**Fig.2 Pulse Derating Curve**

Fig.3 Pulse Waveform-8/20μs

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(MIL)	20*20		

BOTTOM VIEW

Order Information

Device	Marking	Carrier	Quantity	HSF Status
SPESLC5VD1006S-2B	5S	Tape & Reel	12000pcs / Reel	RoHS compliant