

# GSESLC5VD1006S-2B

## Low Capacitance ESD Protection Diode

### Features

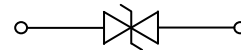
- 40 Watts peak pulse power ( $t_p = 8/20\mu s$ )
- DFN1006 (0402) package
- Bidirectional configurations
- Low clamping voltage
- Low leakage current
- Low capacitance ( $C_j=2.7pF$  typ.)
- Protection one data/power line to:
  - IEC 61000-4-2  $\pm 10kV$  contact  $\pm 15kV$  air
  - IEC 61000-4-4 (EFT) 40A (5/50ns)
  - IEC 61000-4-5 (Lightning) 3.5A (8/20 $\mu s$ )
- 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 ( $T_A=25^\circ C$ unless otherwise specified)

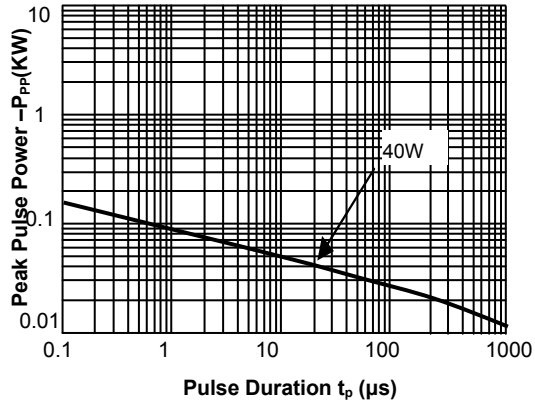
Parameter	Symbol	Value	Unit
Peak Pulse Power ( $T_p=8/20\mu S$ )	$P_{PP}$	40	W
ESD Contact/Air Discharge (IEC-61000-4-2)	$V_{ESD}$	10/15	kV
Peak Pulse Current ( $t_p = 8/20\mu S$ )	$I_{PP}$	3.5	A
Junction Temperature	$T_J$	-55 to +125	$^\circ C$
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ C$

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

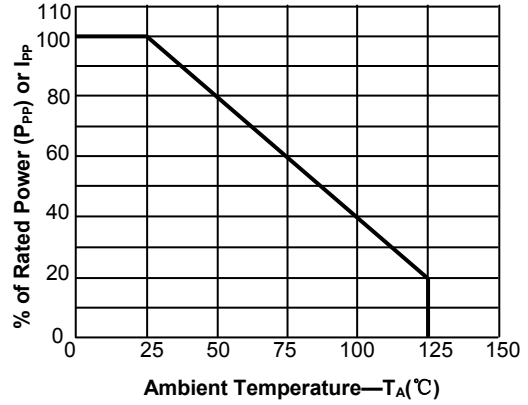
Parameter	mbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	$V_{RWM}$	-	-	-	5.0	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	5.5	6.5	-	V
Reverse Leakage Current	$I_R$	$V_R=5.0V$	-	5	100	nA
Clamping Voltage (IEC 61000-4-5)	$V_C$	$I_{PP}=3.5A$	-	-	11.5	V
Trigger Voltage (IEC 61000-4-2)	$V_T$	$V_{ESD}=8kV$	-	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**

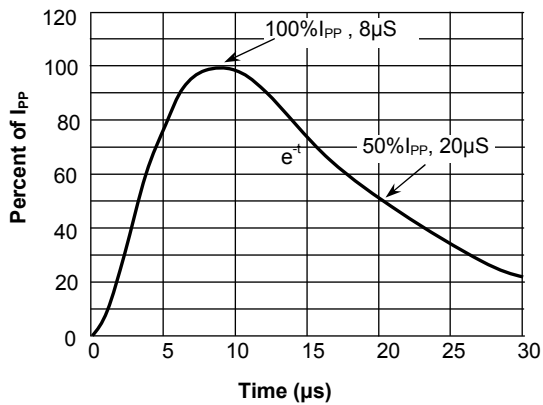
**Fig.1 Peak Pulse Power Rating Curve**



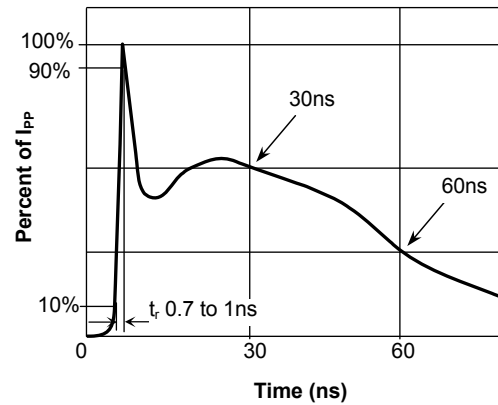
**Fig.2 Pulse Derating Curve**



**Fig.3 Pulse Waveform-8/20 $\mu s$**



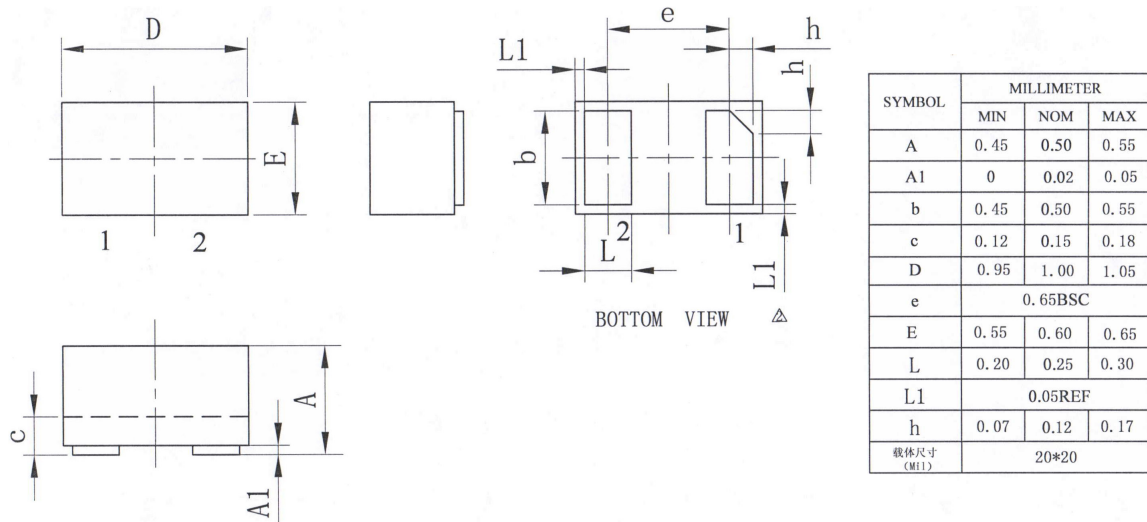
**Fig.4 Pulse Waveform-ESD(IEC61000-4-2)**



# GSESLC5VD1006S-2B

## Low Capacitance ESD Protection Diode

### Product Dimensions



### Order Information

Device	Marking	Carrier	Quantity	HSF Status
GSESLC5VD1006S-2B	5S	Tape & Reel	12000pcs / Reel	RoHS compliant