

GSES5VC0201-2B

Low Capacitance ESD Protection Diode

Features

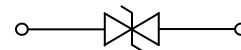
- 35 Watts peak pulse power ($t_p = 8/20\mu s$)
- 0201 chip scale package
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance ($C_j=5pF$ typ.)
- Protection one data/power line to:
 - IEC 61000-4-2 $\pm 8kV$ contact $\pm 15kV$ air
 - IEC 61000-4-4 (EFT) 40A (5/50ns)
 - IEC 61000-4-5 (Lightning) 2.6A (8/20 μs)
- RoHS compliant



CSP0201

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 noted)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($T_P=8/20\mu S$)	P_{PP}	35	W
Peak Pulse Current ($t_p = 8/20\mu S$)	I_{PP}	2.6	A
ESD contact discharge (IEC-61000-4-2)	V_{ESD}	8	kV
ESD air discharge (IEC-61000-4-2)	V_{ESD}	15	kV
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 noted)

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	8.0	9.5	V
Reverse Leakage Current	I_R	$V_R=5V$	-	0.01	0.5	μA
Clamping Voltage (IEC 61000-4-5)	V_C	$I_{PP}=1A$	-	11.6	-	V
	V_C	$I_{PP}=2.6A$	-	13.5	-	V
Trigger Voltage (IEC 61000-4-2)	V_T	$V_{ESD}=8kV$	-	105	-	V
Clamping Voltage (IEC 61000-4-2)	V_C	$V_{ESD}=8kV$	-	20	-	V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$	-	5	-	pF

Typical Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

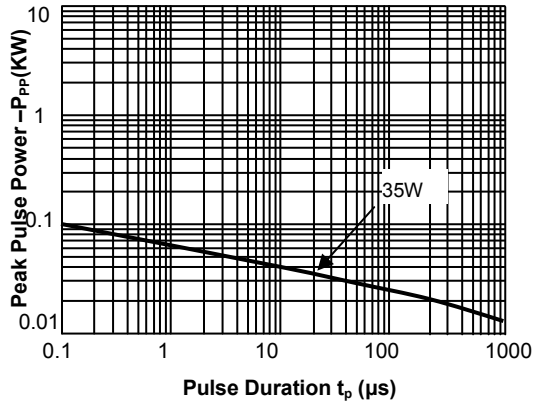


Fig.2 Pulse Derating Curve

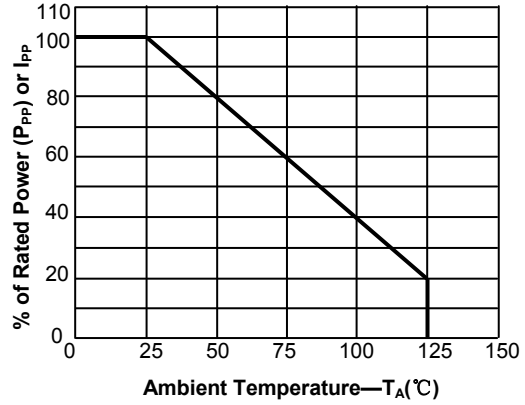


Fig.3 Pulse Waveform-8/20μs

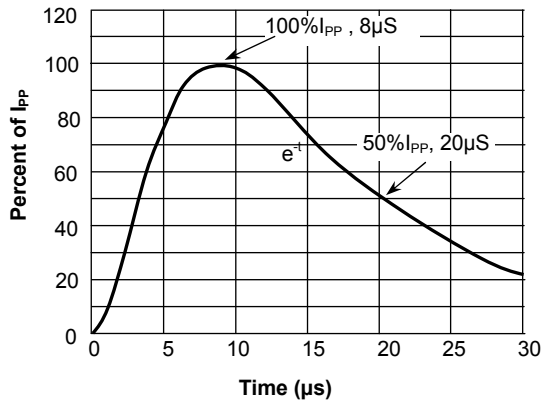
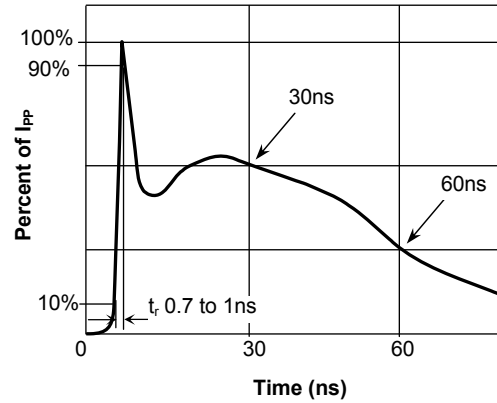
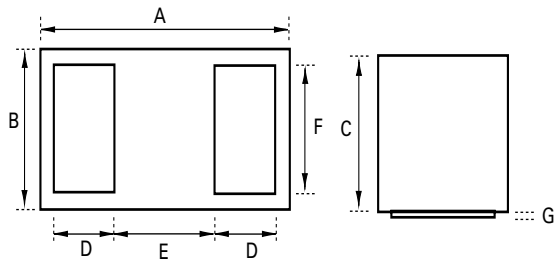


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



Product Dimensions

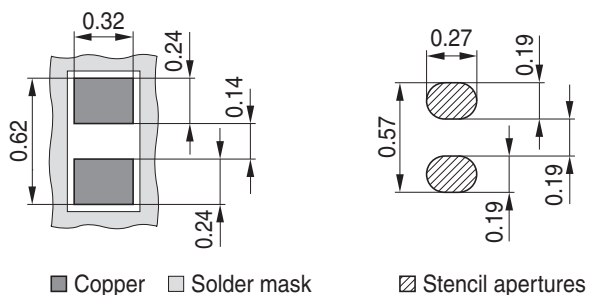
CSP0201



Symbol	Dimensions in millimeters		
	Min	Nom	Max
A	0.570	0.600	0.630
B	0.270	0.300	0.330
C	0.230	0.260	0.290
D	0.125	0.130	0.135
E	0.265	0.270	0.275
F	0.225	0.230	0.235
G	0.005	0.010	0.015

Footprint

Dimension in mm



Marking



Order Information

Device	Package	Carrier	Quantity	HSF Status
GSES5VC0201-2B	0201	Tape & Reel	10000pcs / Reel	RoHS compliant