

GSESLC5VT723-3U

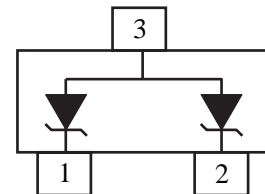
Low Capacitance ESD Protection Diode

Features

- SOT-723 package
- Unidirectional configurations
- R2R + Zener technology
- Low clamping voltage
- Low leakage current
- Ultra low capacitance ($C_j=0.3\text{pF typ.}$)
- Protection data/power line to:
 IEC 61000-4-2 $\pm 10\text{kV}$ contact $\pm 18\text{kV}$ air
 IEC 61000-4-4 (EFT) 40A (5/50ns)
 IEC 61000-4-5 (Lightning) 3A (8/20 μs)
- RoHS compliant



SOT-723



Schematic Diagram

Applications

- High-Definition Multimedia Interface(HDMI)
- Mobile Display Digital Interface(MDDI)
- RF/Antenna Circuits
- USB & Firewire Ports
- HBT Power Amp Protection
- Infiniband Transceiver Protection

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
ESD Contact/Air Discharge (IEC-61000-4-2)	V_{ESD}	10/18	kV
Peak Pulse Current ($T_P=8/20\mu\text{S}$)	I_{PP}	3	A
Junction Temperature	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbols	Conditions	Min	Typ	Max	Units
Reverse Stand-off Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6	-	10.5	V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}, T=25^\circ\text{C}$	-	<1	100	nA
Clamping Voltage	V_C^1	$I_{PP}=3\text{A}, T_P=8/20\mu\text{S}$	-	10	-	V
Clamping Voltage	V_C^2	$I_{PP}=3\text{A}, T_P=8/20\mu\text{S}$	-	20	-	V
Junction Capacitance	C_J^1	$V_R=0\text{V}, f=1\text{MHz}$	-	0.3	-	pF
Junction Capacitance	C_J^2	$V_R=0\text{V}, f=1\text{MHz}$	-	0.2	-	pF

Note:

1. pin1 or pin2 to pin3
2. pin1 to pin2

Typical Characteristic Curves

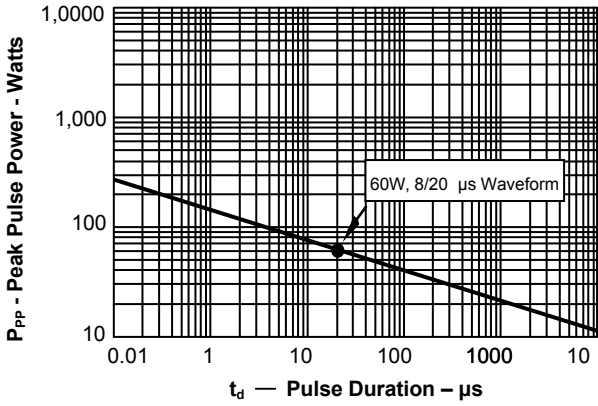


Fig.1 Peak Pulse Power vs Pulse Time

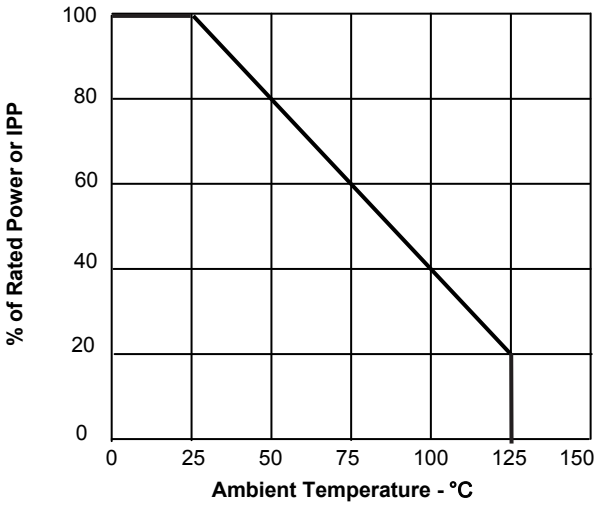


Fig.3 Power Derating Curve

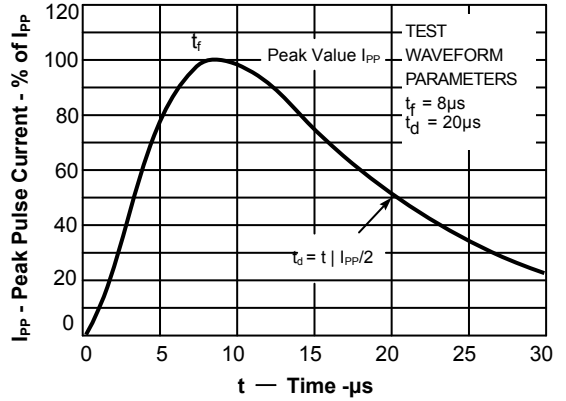


Fig.2 Pulse WaveForm-8/20μs

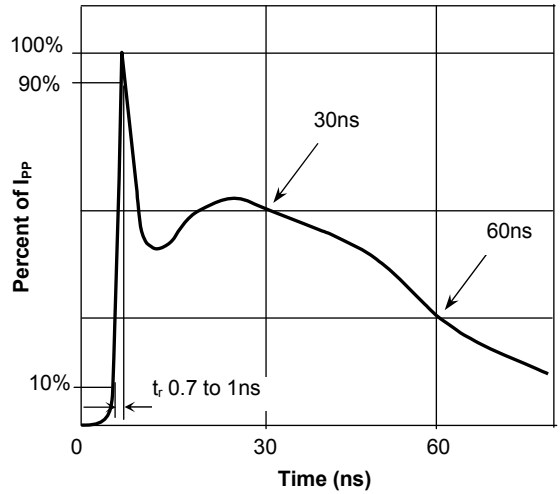
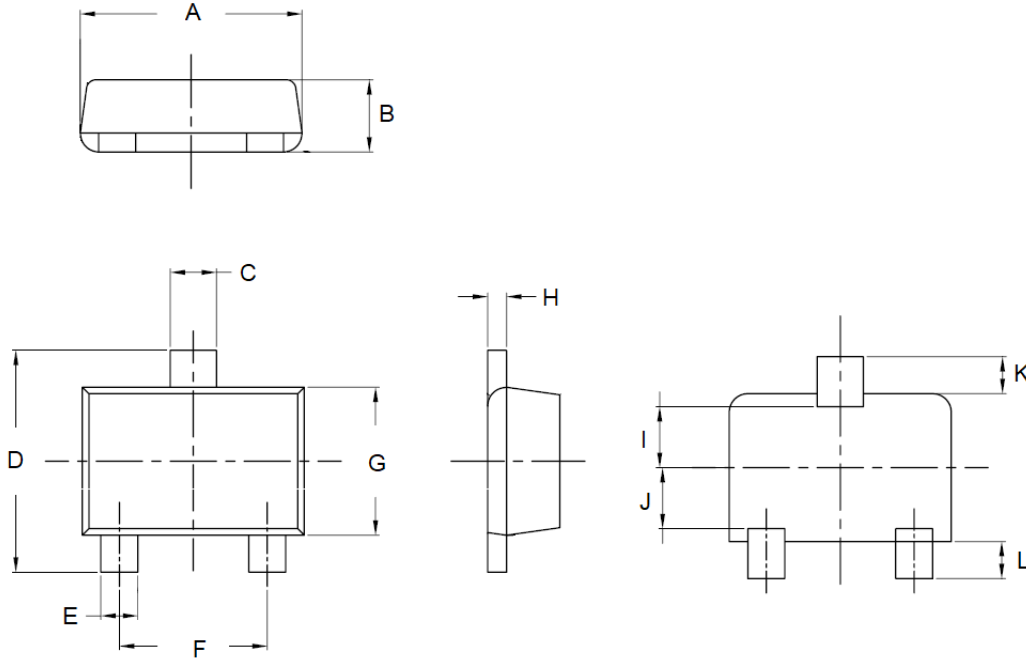


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

GSESLC5VT723-3U

Low Capacitance ESD Protection Diode

Package Outline Dimensions (Unit in mm)

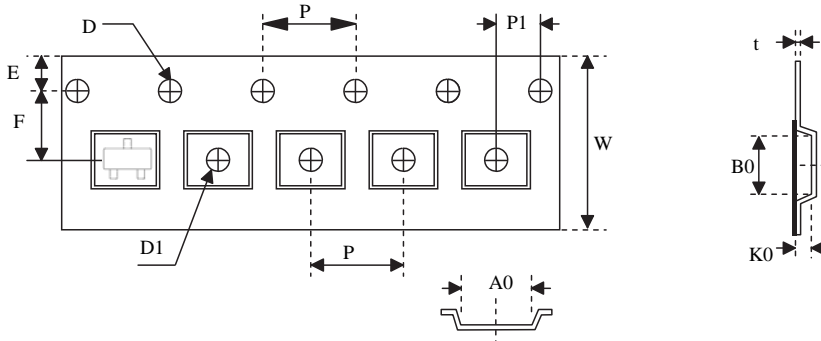


Symbol	Millimeter		
	Min	Nom	Max
A	1.15	1.2	1.25
B	0.4	0.45	0.5
C	0.2	0.25	0.3
D	1.125	1.2	1.275
E	0.15	0.2	0.25
F	0.775	0.8	0.825
G	0.75	0.8	0.85
H	0.077	0.102	0.127
I	0.33 REF		
J	0.33 REF		
K	0.15	0.2	0.25
L	0.15	0.2	0.25

GSESLC5VT723-3U

Low Capacitance ESD Protection Diode

Package Information



Unit:mm

A0	B0	K0	D	E	F	W	P	P1	C	tmax
3.15±0.10	3.20± 0.10	1.40±0.10	1.50±0.10	1.75±0.10	3.50±0.50	4.00± 0.10	4.00± 0.10	2.00± 0.10	5.30±0.10	0.25

Order Information

Device	Package	Marking	Quantity	HSF Status
GSESLC5VT723-3U	SOT-723	T5	10,000pcs / Reel	RoHS compliant