

Features

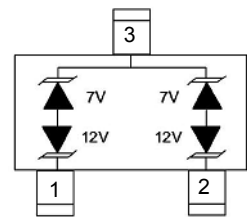
- 500 Watts peak pulse power ($t_P = 8/20\mu s$)
- Bidirectional configurations
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2 $\pm 30kV$ (Air) ESD protection
- IEC 61000-4-2 $\pm 30kV$ (Contact) ESD protection
- IEC 61000-4-5 22A/28A (8/20 μs) Lightning protection



SOT-23

Applications

- Security System
- RS-485 Protection
- Automatic Teller Machine
- HFC System
- LAN/WAN equipment



Schematic Diagram

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

Parameter	Symbol	Max.	Unit
Peak Pulse Power ($T_P = 8/20\mu s$)	P_{PP}	500	W
Peak Pulse Current ($T_P = 8/20\mu s$)	I_{PP}	22/28	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	Conditions	Pin 1 to 3 and 2 to 3 (12V TVS)		Pin 3 to 1 and 3 to 2 (7V TVS)		Units
			Min	Max	Min	Max	
Reverse Stand-Off Voltage	V_{RWM}	-	-	12	-	7	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	13.3	-	8.0	-	V
Reverse Leakage Current	I_R	$V_R = V_{RWM}$	-	1	-	1	μA
Clamping Voltage	V_C	$I_{PP} = 22A, t_P = 8/20\mu s$	-	25	-	-	V
		$I_{PP} = 28A, t_P = 8/20\mu s$	-	-	-	17	
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$	-	75	-	75	pF

Typical Characteristic Curves

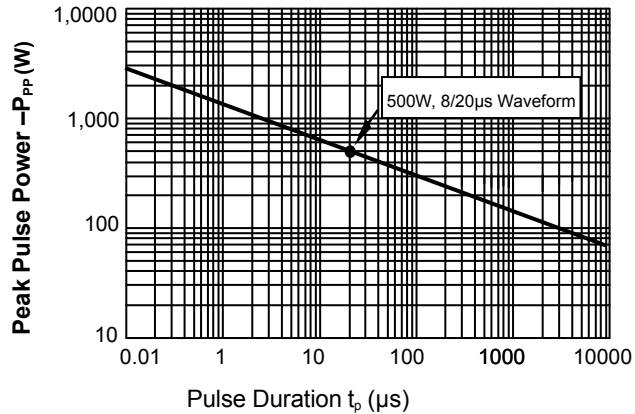


Fig.1 Peak Pulse Power Rating Curve

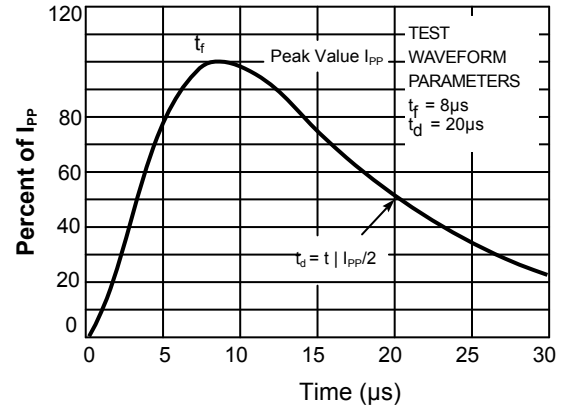


Fig.2 Pulse Waveform-8/20 μ s

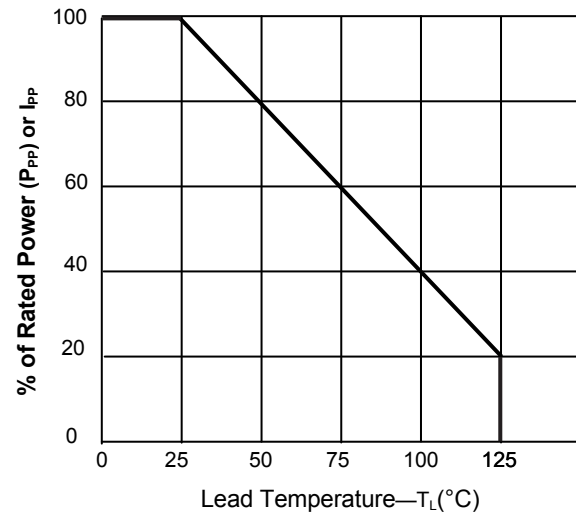


Fig.3 Power Derating Curve

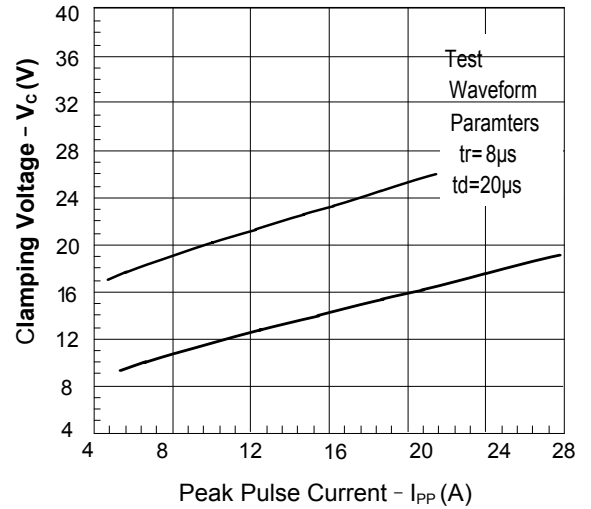
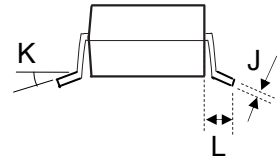
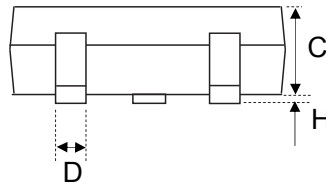
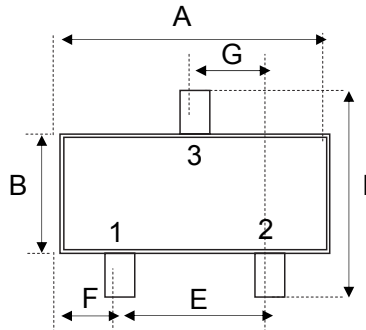


Fig.4 Clamping Voltage vs. I_{PP}

Package Outline Dimensions SOT-23



Dim	Millimeters	
	Min	Max
A	2.80	3.04
B	1.20	1.40
C	0.89	1.11
D	0.37	0.50
E	1.78	2.04
F	0.45	0.60
G	0.89	1.02
H	0.013	0.100
I	2.10	2.50
J	0.085	0.177
K	0°	10°
L	0.45	0.60

Order Information

Device	Package	Marking	Reel Quantity	HSF Status
GSEC7B750	SOT-23	712	3,000pcs	RoHS compliant