GOOD-ARK
SEMICONDUCTOR

GSEC7B750
TVS Diode Array

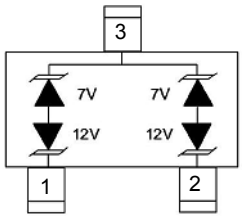
Features

- 500 Watts peak pulse power (tP = 8/20μs)
- Bidirectional configurations
- Excellent clamping voltage
- Low leakage current
- IEC 61000-4-2 ±30kV (Air) ESD protection
- IEC 61000-4-2 ±30kV (Contact) ESD protection
- IEC 61000-4-5 22A/28A (8/20μs) 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°C unless otherwise specified)

Parameter	Symbol	Max.	Unit
Peak Pulse Power (T_P=8/20μS)	P_{PP}	500	W
Peak Pulse Current (T_P=8/20μS)	I_{PP}	22/28	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	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,tp=8/20μs	-	25	-	-	V
		I_{PP}=28A,tp=8/20μs	-	-	-	17	
Junction Capacitance	C_j	V_R=0V, f=1MHz	-	75	-	75	pF

Typical Characteristic Curves

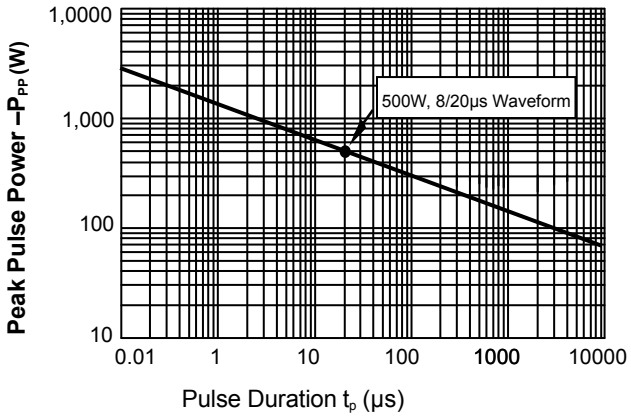


Fig.1 Peak Pulse Power Rating Curve

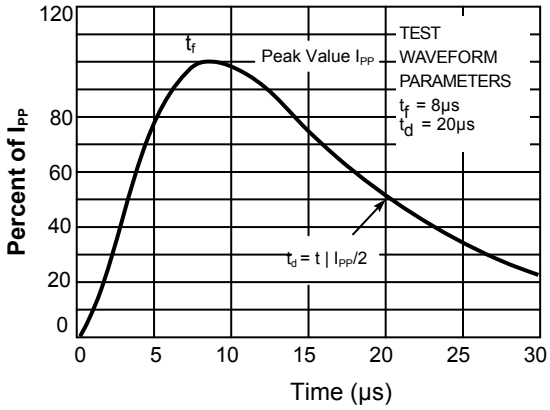


Fig.2 Pulse Waveform-8/20μs

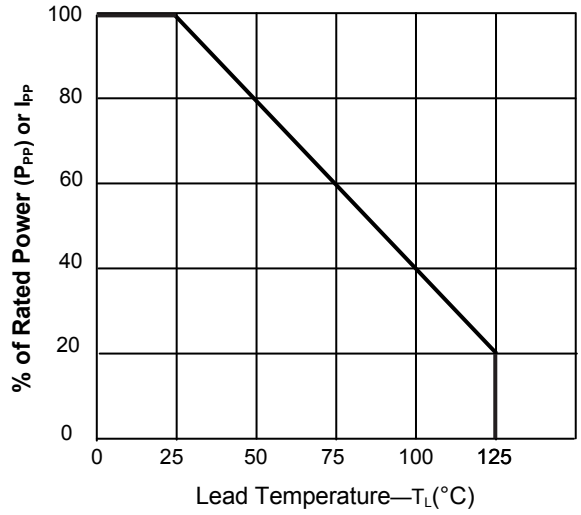


Fig.3 Power Derating Curve

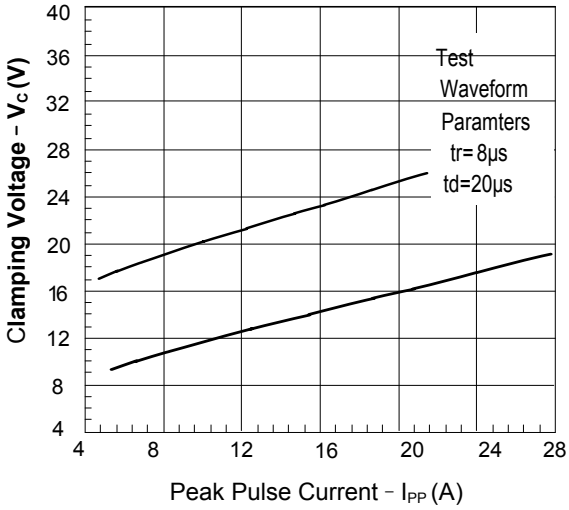
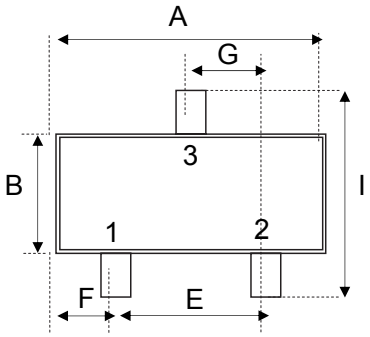
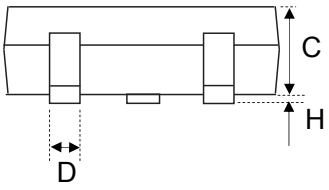
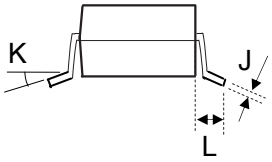


Fig.4 Clamping Voltage vs. Ipp

Package Outline Dimensions (SOT-23)







Dim	Millmeters	
	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/Reel	RoHS Compliant