GOOD-ARK
SEMICONDUCTOR

GSEZ3B170
ESD Protection Diode

Features

- 80 Watts peak pulse power (T_P = 8/20μs)
- Bidirectional configuration
- Protects I/O and power port
- Low clamping voltage
- Low leakage current
- ESD-immunity acc. IEC 61000-4-2 ±15KV contact ±25KV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 10A (8/20μs)

SOD-882

Schematic Diagram

Applications

- Cell Phone
- PDA
- Notebook
- Digital Cameras
- Portable Instrumentation
- Audio and video equipment

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (T_P=8/20μS)	P_{PP}	80	W
Peak Pulse Current (T_P=8/20μS)	I_{PP}	10	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	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	3.3	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	3.8	-	-	V
Reverse Leakage Current	I_R	V_R=3.3V	-	-	0.5	μA
Clamping Voltage	V_C	I_{PP}=10A, T_P=8/20μS	-	8.0	-	V
Junction Capacitance	C_J	V_R=0V, f=1MHz	-	17	23	pF

Typical Characteristic Curves

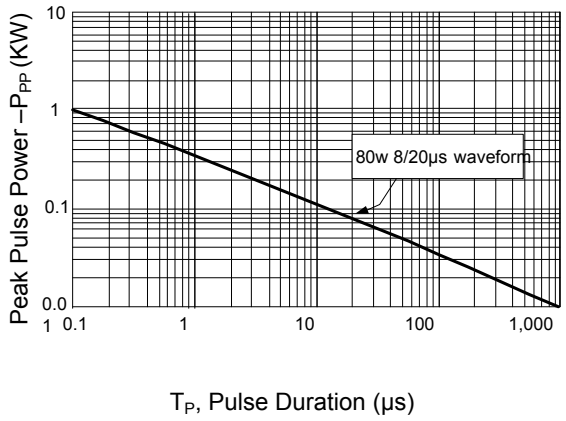


Figure 1. Peak Pulse Power vs. Pulse Time

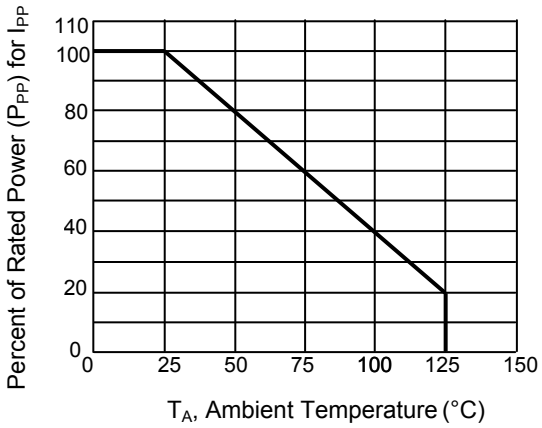


Figure 2. Pulse Derating Curve

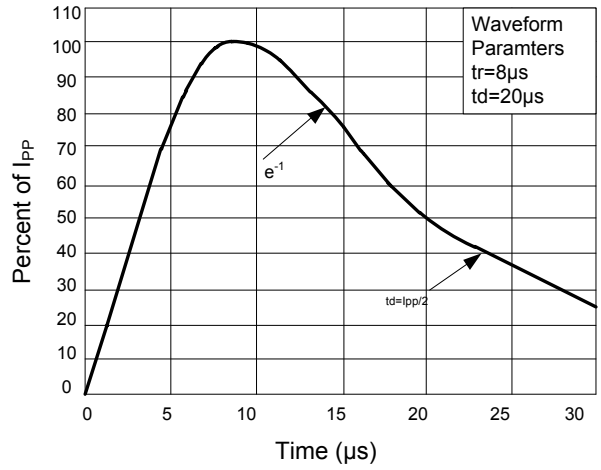


Figure 3. Pulse Waveform

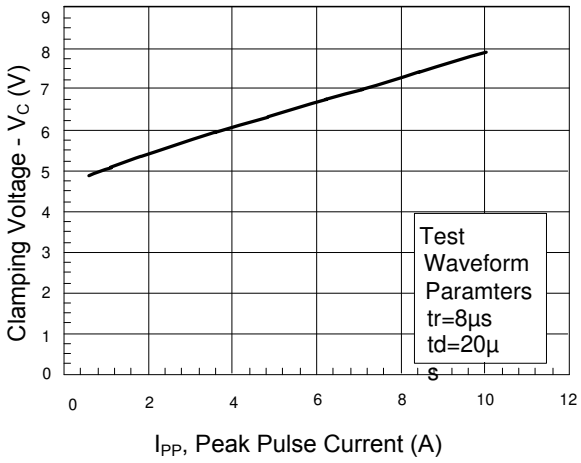
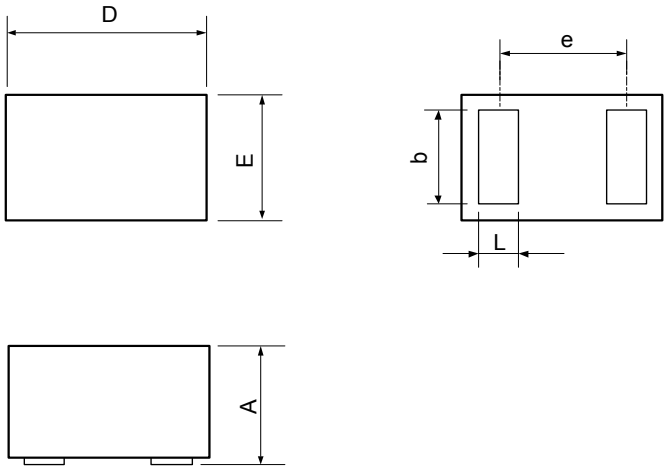


Figure 4. Clamping Voltage vs. I_{PP}

Package Outline Dimensions (SOD-882)



Symbol	Dimensions in Millimeters		
	Min	Nom	Max
D	0.95	1.00	1.05
E	0.55	0.60	0.65
A	0.45	0.50	0.55
b	0.45	0.50	0.55
L	0.20	0.25	0.30
e	0.65 BSC		

Order Information

Device	Package	Marking	Carrier	Quantity
GSEZ3B170	SOD-882	3E	Tape & Reel	10,000 pcs / Reel