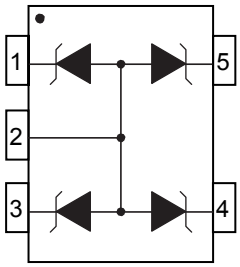
GSEMP5B065
ESD Protection Diode

Features

- 30W peak pulse power per line (T_P=8/20μs)
- SOT-553 package
- Protects three bidirectional lines or four Unidirectional lines
- Monolithic structure
- Working voltage: 5V
- Low clamping voltage
- Low leakage current
- RoHS compliant
- Transient protection for data lines to
  IEC 61000-4-2(ESD) ±15 KV(air), ±8KV(contact)
  IEC 61000-4-4 (EFT) 40A (5/50ns)

SOT-553



Schematic Diagram

Applications

- Communication systems &Cellular phones
- Printers
- Notebook and hand hold computers
- PDAs
- 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}	30	W
Peak Pulse Current (T_P=8/20μS)	I_{PP}	1.5	A
Junction Temperature	T_J	-55 To +125	°C
Storage Temperature	T_{STG}	-55 To +150	°C

Electrical Characteristics per line (T_A=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	V_{RWM}	-	-	-	5	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6	-	-	V
Reverse Leakage Current	I_R	V_{RWM}=5V	-	-	1	μA
Clamping Voltage	V_C	I_{PP}=1A, T_P=8/20μS	-	-	9.8	V
	V_C	I_{PP}=2A, T_P=8/20μS	-	-	15.0	V
Junction Capacitance[1]	C_J	V_R=0V, f=1MHz	-	6.5	-	pF

Note: 1. Pin1, 3, 4, 5 to Pin2

Typical Characteristic Curves

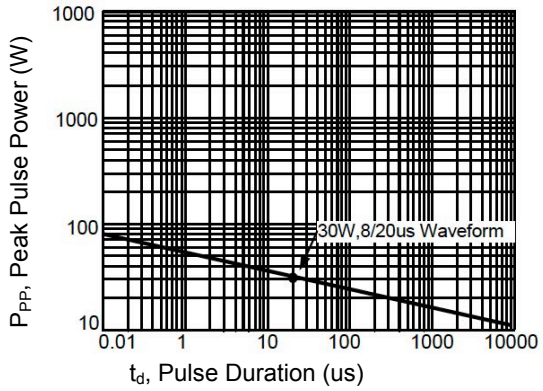


Figure 1. Peak Pulse Power vs. Pulse Time

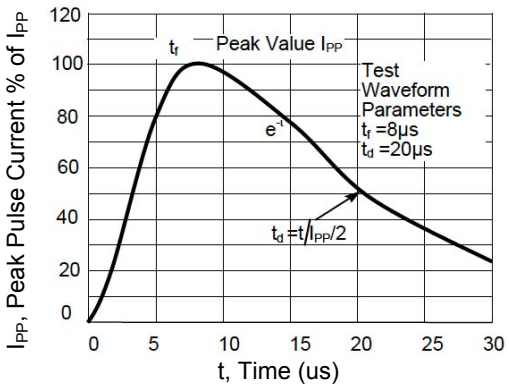


Figure 2. Pulse Wave Form

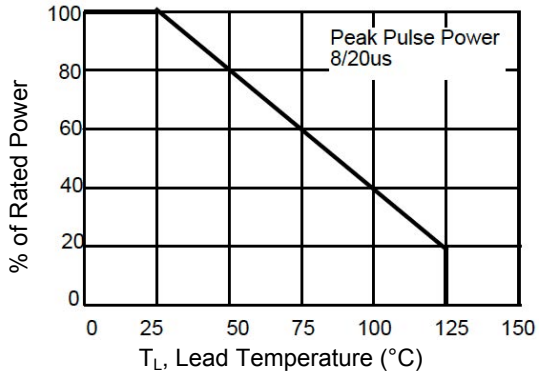
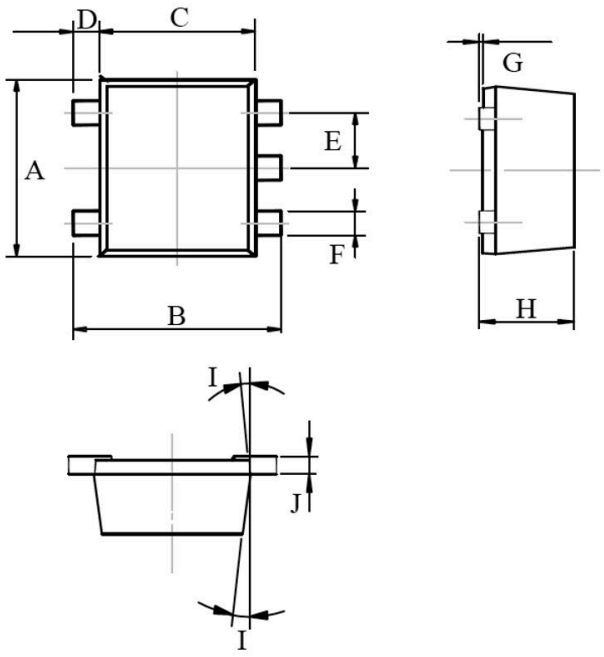


Figure 3. Power Derating Curve

Package Outline Dimensions



Symbol	Dimensions in Millimeters	
	Min	Max
A	1.50	1.70
B	1.50	1.70
C	1.10	1.30
D	0.10	0.30
E	0.50 BSC	
F	0.17	0.27
G	0.00	0.05
H	0.50	0.60
I	7°REF	7°REF
J	0.08	0.16

Order Information

Device	Package	Marking	Carrier	Quantity	HSF Status
GSEMP5B065	SOT-553	E5F	Tape & Reel	3000pcs	RoHS compliant