GOOD-ARK SEMICONDUCTOR

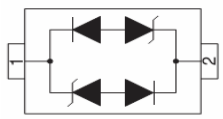
GSEDC3B010
Low Capacitance ESD Protection Diode

Features

- 350W peak pulse power per line (tp=8/20μs)
- SOD-323 package
- Bidirectional configuration
- Protects one power or I/O line
- Low clamping voltage
- RoHS compliant
- Transient protection for data lines to
  IEC61000−4−2 (ESD) ±30KV(air), ±30KV(contact);
  IEC61000-4-4 (EFT) 40A (5/50ns)
  IEC61000-4-5 (surge): 15A (8/20us)



SOD-323



Schematic Diagram

Applications

- Ethernet-10/100/1000 Base T
- Smart Phones
- Handheld- Wireless Systems
- PDAs
- USB Interface

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

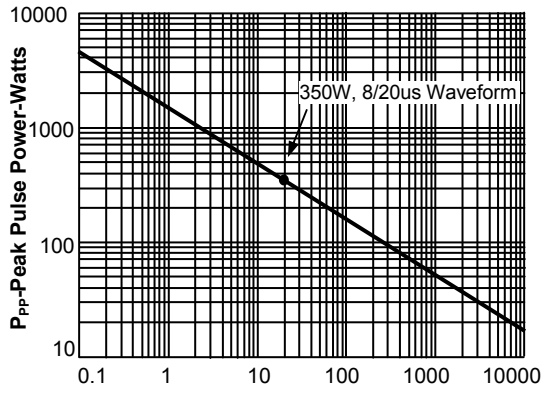
Rating	Symbols	Value	Units
Peak Pulse Power (T_P=8/20μS)	P_{PP}	350	W
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

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

Part Number	Marking	V_{RWM}	I_R @ V_{RWM}	Min Breakdown Voltage V_{BR} @1mA	Max Clamping Voltage V_C		Typ C_J
					@I_P=1A	@I_{PP}	@0V,1MHz
		V	uA	V	V	V	pF
GSEDC3B010	3B	3.3	1	4.0	7.0	19 @ 20A	1

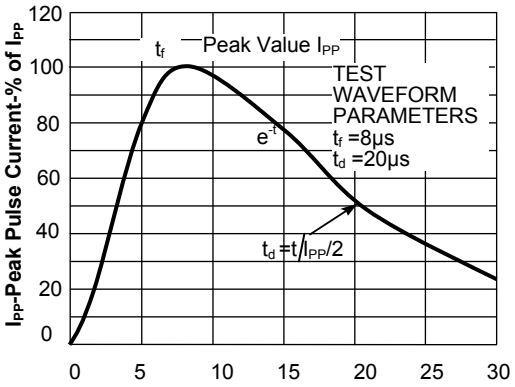
Typical Characteristic Curves (T_A=25°C unless otherwise specified)

Fig.1 Peak Pulse Power vs Pulse Time



t_d - Pulse Duration-us

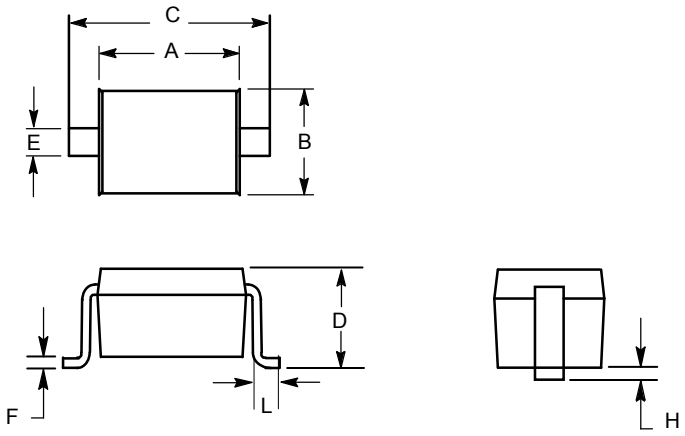
Fig.2 Pulse Waveform



t- Time-us

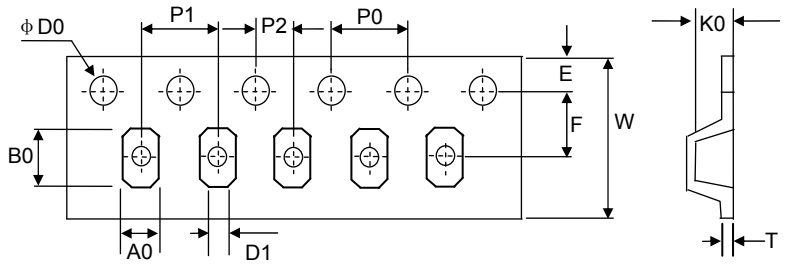
Package Outline Dimensions

SOD-323



Dim	millimeters	
	min	max
A	1.60	1.90
B	1.15	1.45
C	2.39	2.70
D	0.80	1.10
E	0.25	0.40
F	0.10	0.20
H		0.10
L	0.20	-

Package Information



Unit:mm

A0	B0	K0	D1	ϕD0	E	F	W	P0	P1	P2	T
1.52±0.10	2.90±0.10	1.35±0.10	1.0±0.25	1 0±0.10	1.75± 0.10	3.50± 0.05	8.00± 0.10	4.00±0.10	4.00±0.10	2. 0±0.05	0.24–0.27

Order Information

Device	Package	Carrier	Quantity	HSF Status
GSEDC3B010	SOD-323	Tape & Reel(7”)	3000pcs	RoHS compliant