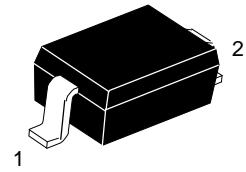


# GSESLC18VD323S-2B

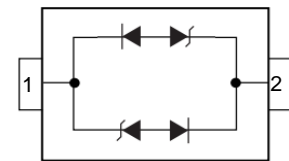
## Low Capacitance ESD Protection Diode

### Features

- 240W peak pulse power per line (tp=8/20μs)
- SOD-323 package
- Bidirectional configurations
- 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): 5.5A (8/20us)



**Package: SOD-323**



**Schematic Diagram**

### Applications

- Ethernet- 10/100/1000 Base T
- Cellular phones
- Handheld- Wireless Systems
- PDAs
- USB Interface

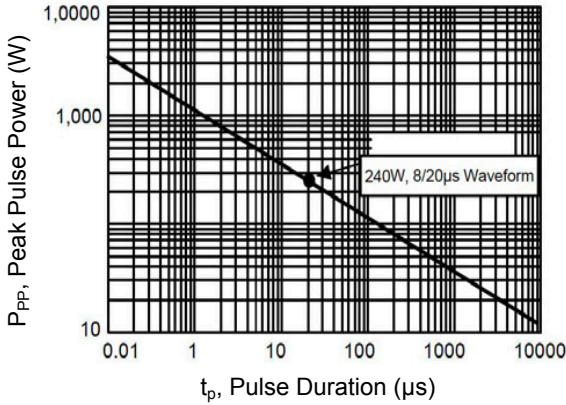
### Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (T <sub>P</sub> =8/20μS)	P <sub>PP</sub>	240	W
Operating Temperature Range	T <sub>J</sub>	-55 To +125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 To +150	°C

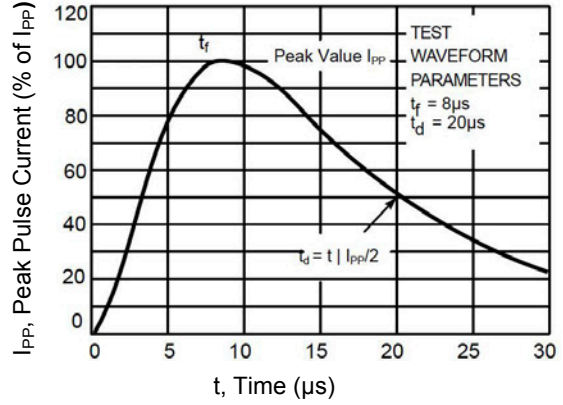
### Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V <sub>RWM</sub>	-	-	-	18	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>T</sub> =1mA	19.8	-	-	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWN</sub> =18V	-	-	1	uA
Clamping Voltage (Pin 2 to Pin 1)	V <sub>C</sub>	I <sub>PP</sub> =5.5A, T <sub>P</sub> =8/20μs	-	38	-	V
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> =0V, f=1MHz	-	1	-	pF

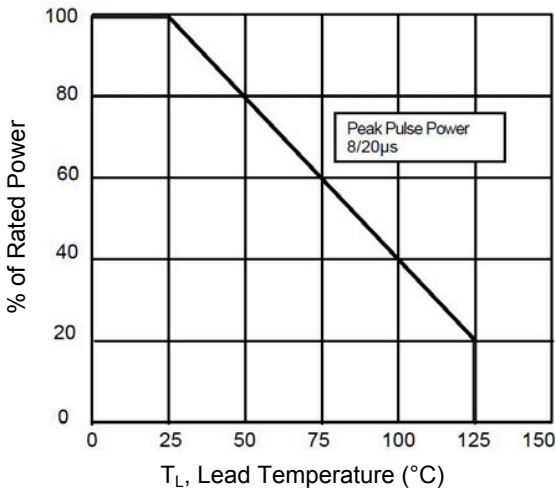
**Typical Characteristic Curves**



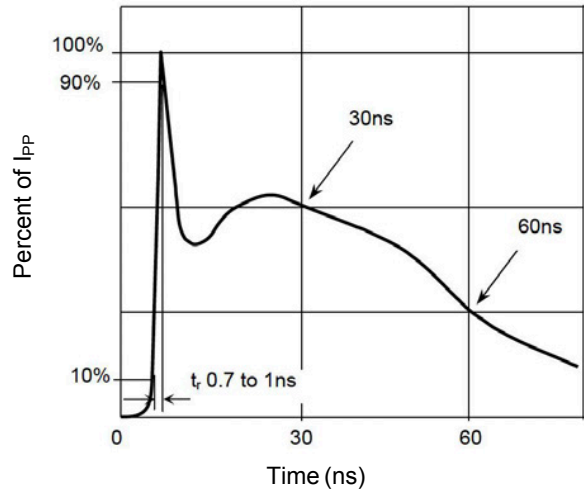
**Figure 1. Peak Pulse Power vs. Pulse Time**



**Figure 2. Pulse Waveform - 8/20μs**

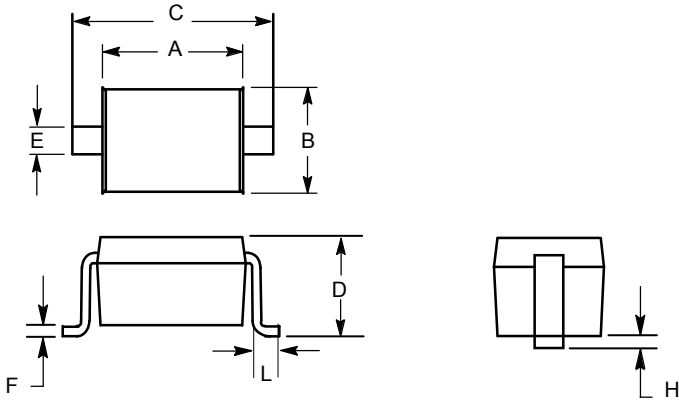


**Figure 3. Power Derating Curve**



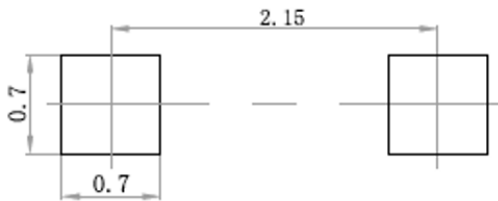
**Figure 4. Pulse Waveform - ESD (IEC61000-4-2)**

**Package Outline Dimensions (SOD-323)**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.600	1.900	0.063	0.075
B	1.150	1.450	0.045	0.057
C	2.390	2.700	0.094	0.106
D	0.800	1.100	0.031	0.043
E	0.250	0.400	0.010	0.016
F	0.100	0.200	0.004	0.008
H	-	0.100	-	0.004
L	0.200	-	0.008	-

**Recommended Pad Layout**



**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.

**Order Information**

Device	Package	Marking	Quantity	HSF Status
GSESLC18VD323S-2B	SOD-323	TBL	3,000pcs / Reel	RoHS Compliant