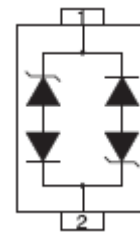
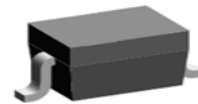


The GBLCxxCI Series is ultra low capacitance transient voltage suppressor arrays, designed to protect applications such as portable electronics and SMART phones. This series is available in both unidirectional and bidirectional configurations and is rated at 350 Watts for an 8/20 $\mu$ s waveform.

The GBLCxxCI Series meets IEC 61000-4-2 (ESD) and IEC 61000-4-4 (EFT) requirements. At higher operating frequencies or faster edge rates, insertion loss and signal integrity are a major concern. This series offers an ultra low capacitance and low leakage current in a miniature SOD-323 package.

### Features

- 350 Watts Peak Pulse Power per Line (8 x 20 us Waveform)
- Replacement for MLV (0805)
- Protects One Power or I/O Port
- Low Clamping Voltage
- Available in Multiple Voltages Ranging From 3V to 24V
- Ultra Low Capacitance: 0.8pF (Typical)
- Response Time is < 1 ns
- Meets MSL 1 Requirements
- Solid-state silicon avalanche technology
- ROHS compliant
- WeiPan technology



SOD323

### Main applications

- Hand-Held Portable Applications
- Networking and Telecom(Ethernet 10/100/1000 Base T)
- USB Interface
- Automotive Electronics
- Serial and Parallel Ports
- Notebooks, Desktops, Servers

### Protection solution to meet

- IEC61000-4-2 (ESD)  $\pm$ 15kV (air),  $\pm$ 8kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)

**Maximum ratings (Tamb=25°C Unless Otherwise Specified)**

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp=8/20μs waveform)	PPPP	350	Watts
ESD Rating per IEC61000-4-2:	Contact	8	KV
	Air	15	
Lead Soldering Temperature	TL	260 (10 sec.)	°C
Operating Temperature Range	TI	-55 ~ 150	°C
Storage Temperature Range	TSTG	-55 ~ 150	°C
Lead Solder Temperature – Maximum (10 Second Duration)	TL	260	°C

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.

Other voltages may be available upon request.

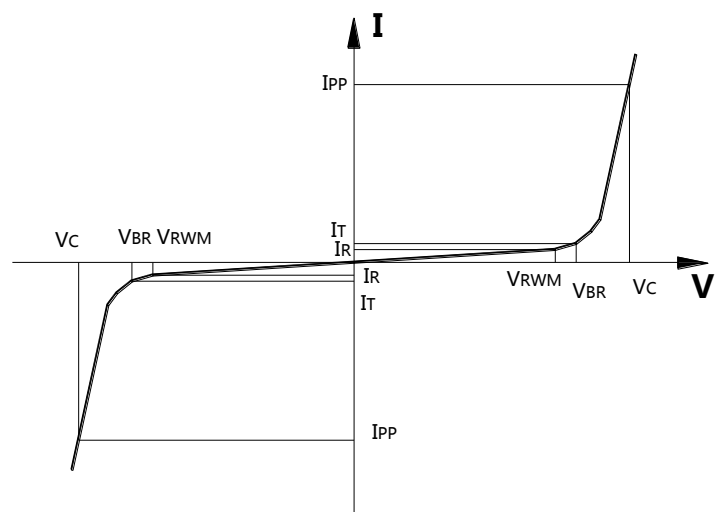
1. Non-repetitive current pulse, per Figure 1.

**Electrical characteristics (Tamb=25°C Unless Otherwise Specified)**

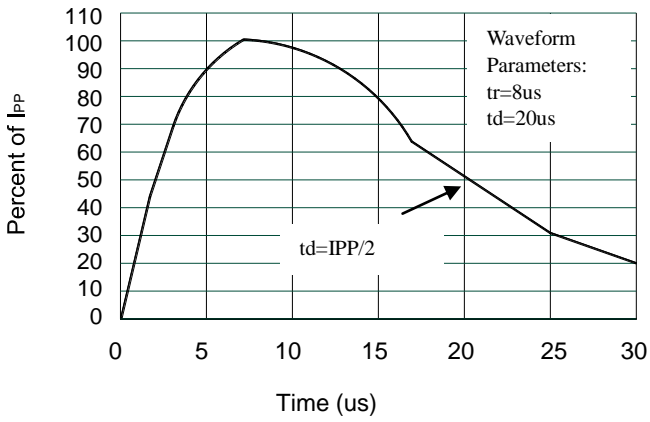
Device	VRWM	IR @ VRWM	VBR @ 1 mA	VC	Max IPP	Capacitance	PPK
			(Volts)	@ 1 A		@ VR = 0 V, 1 MHz (pF)	
			Min	(V)		Typ	
GBLC03CI	3	5	4.00	7.50	22	0.8	350
GBLC05CI	5	2	6.00	9.80	20	0.8	350
GBLC08CI	8	1	8.50	13.6	13	0.8	350
GBLC12CI	12	1	13.3	19.0	10	0.8	350
GBLC15CI	15	1	16.7	24.0	8.0	0.8	350
GBLC24CI	24	1	26.7	43.0	6.0	0.8	350

Junction capacitance is measured in VR=0V, F=1MHz

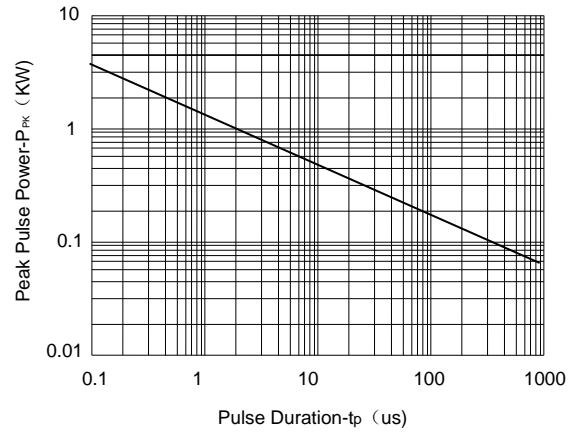
Symbol	Parameter
VRWM	Working Peak Reverse Voltage
VBR	Breakdown Voltage @ IT
VC	Clamping Voltage @ IPP
IT	Test Current
IRM	Leakage current at VRWM
IPP	Peak pulse current
CO	Off-state Capacitance
CJ	Junction Capacitance



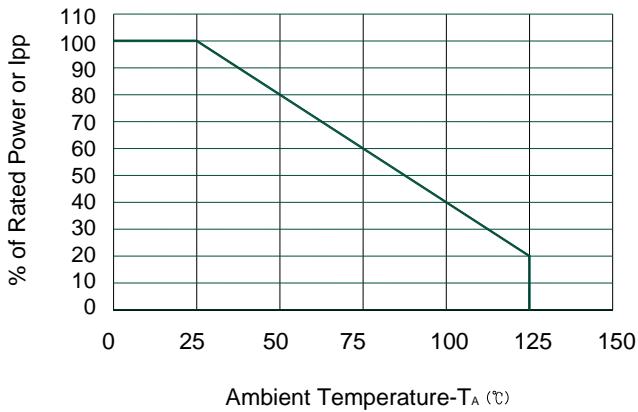
Typical electrical characterist applications



Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time

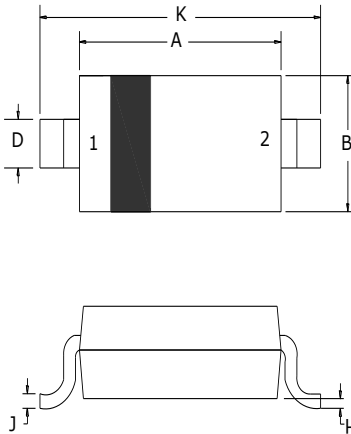


Power Derating Curve

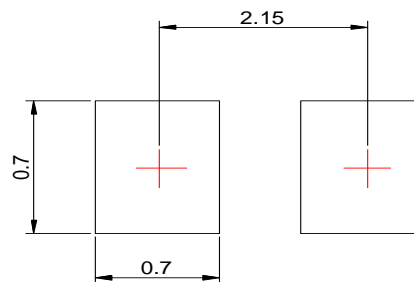
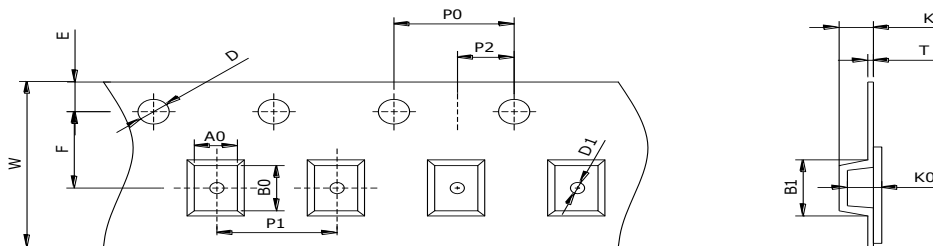
**Package Information**
**Mechanical Data**

Case: SOD-323

Case Material: Molded Plastic. UL Flammability



Dim	Millimeters		Inches	
	Min	Max	Min	Max
<b>A</b>	1.60	1.80	0.063	0.071
<b>B</b>	1.2	1.40	0.047	0.055
<b>C</b>	0.80	0.90	0.031	0.035
<b>D</b>	0.25	0.35	0.010	0.014
<b>E</b>	0.15REF		0.006REF	
<b>H</b>	0	0.10	0	0.004
<b>J</b>	0.08	0.15	0.003	0.006
<b>K</b>	2.50	2.70	0.098	0.106

**Recommended Pad outline**

**SOD-323 Reel Dim**


Package	Chip Size	Pocket Size B0×A0×K0(mm)	Tape Width	Reel Diameter	Quantity Per Reel	P0	P1
SOD-323	2.60×1.40×1.05	3.30×1.50×1.25	8mm	178mm(7")	3000	4mm	4mm
D0	D1	E	F	K	T	W	
1.5mm	0.5mm	1.75mm	3.5mm	0.95mm	0.2mm	8mm	