



GBLCxxCI Series

Bidirectional TVS Diode Array

Description

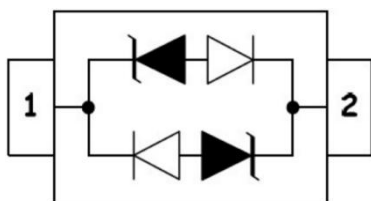
The GBLCxxCI Series is designed for applications requiring transient overvoltage protection capability. They are intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment and other applications. These devices are ideal for situations where board space is at a premium.

This series has been specifically designed to protect sensitive components which are connected to power data and transmission lines from overvoltage caused by ESD (electrostatic discharge), CDE (Cable Discharge Events), and EFT (electrical fast transients).

Ordering Information

- Device:GBLCxxCI
- Package:SOD-323
- Material:Halogen free and RoHS compliant
- Packing:Tape & Reel
- Quantity per reel:3,000pcs

Pin Configuration



Features

- IEC 61000-4-2(ESD) $\pm 30\text{kV}$ (Contact)
 $\pm 30\text{kV}$ (Air)
- IEC61000-4-4(EFT) 40A(5/50ns)
- 450W peak pulse power per ($t_p=8/20\mu\text{s}$)
- Protects two bidirectional lines
- Low clamping voltage
- Working voltage: 3.3V to 36V
- Low leakage current

Mechanical Data

- SOD-323 package
- Flammability Rating: UL 94V-0
- High temperature soldering guaranteed:
260°C/10s
- Packaging: Tape and Reel
- Reel size: 7 inch

Applications

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants(PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports
- Peripherals

Package Outline





GBLCxxCI Series

Absolute Maximum Rating

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2(Air)	V_{ESD}	± 30	kV
ESD per IEC 61000-4-2(Contact)		± 30	kV
Peak Pulse Power(8/20 μ s)	P_{PP}	450	W
Operating Temperature	T_{OPT}	-55~+150	°C
Storage Temperature	T_{STG}	-55~+150	°C
Lead Soldering Temperature(10 sec.)	T_L	260	°C

Electrical Characteristics ($T_A=25^{\circ}\text{C}$)

Part Number	Device Marking	V_{RWM} (V) (max.)	V_{BR} (V) (min.)	I_T (mA)	$V_C@1A$ (V) (max.)	V_C (V) (max.) @A		I_R (μ A) (max.)	C_J (pF) (typ.)
GBLC03CI	CC	3.3	4.0	1	7.0	18.0	23	2	0.8
GBLC05CI	AC	5.0	6.0	1	9.8	19.0	22	1	0.8
GBLC08CI	BC	8.0	8.5	1	13.4	24.0	20	1	0.8
GBLC12CI	DC	12.0	13.3	1	19.0	29.0	17	1	0.8
GBLC15CI	EC	15.0	16.7	1	24.0	34.0	13	1	0.8
GBLC18CI	FC	18.0	20.0	1	29.0	50.0	10	1	0.8
GBLC20CI	GC	20.0	22.3	1	35.0	53.0	9	1	0.8
GBLC24CI	HC	24.0	26.7	1	43.0	55.0	9	1	0.8
GBLC36CI	IC	36.0	40.0	1	60.0	75.0	6	1	0.8



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Typical Characteristics

Fig1. 8/20 μ s Pulse Waveform

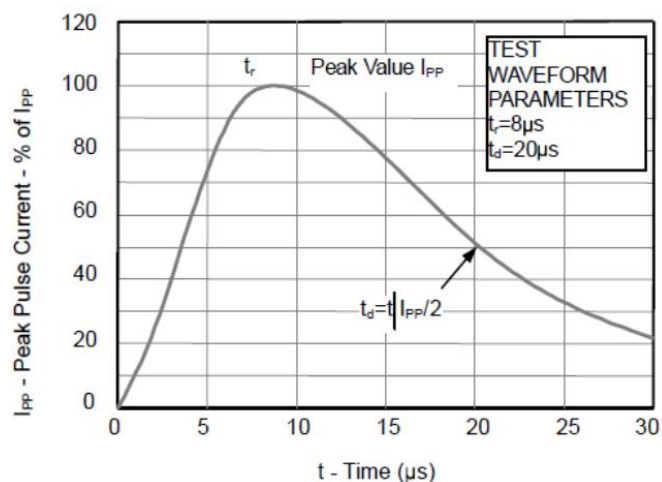


Fig2. Contact Discharge Current Waveform (IEC 61000-4-2)

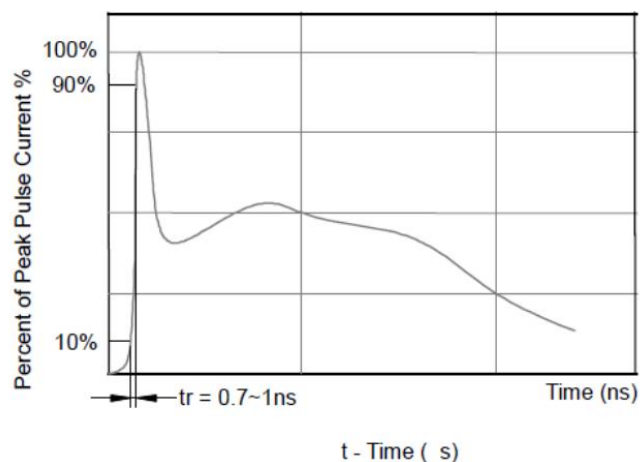


Fig3 Clamping Voltage vs Peak Pulse Current

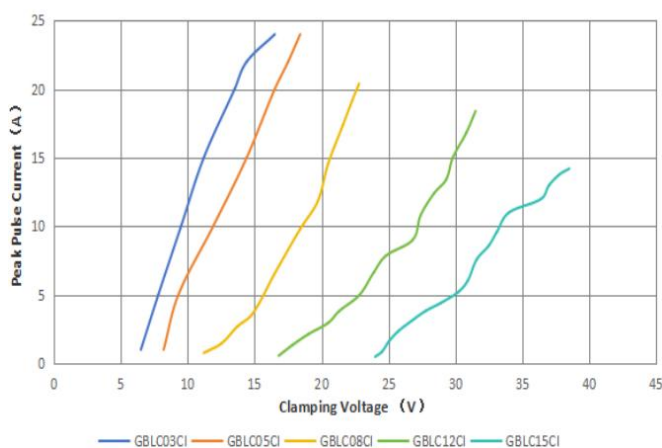


Fig4 Clamping Voltage vs Peak Pulse Current

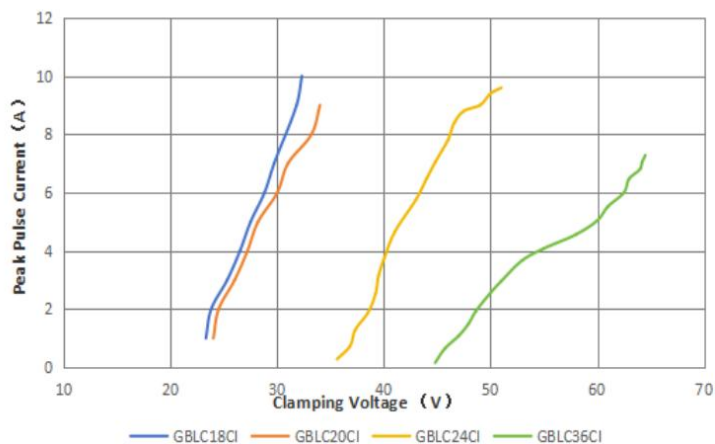
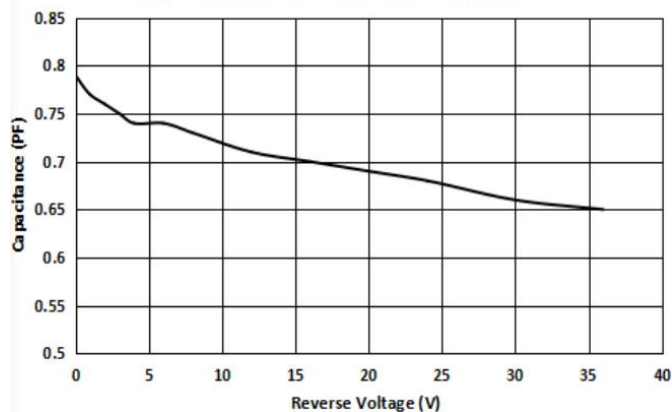


Fig5 Capacitance vs Reverse Voltage



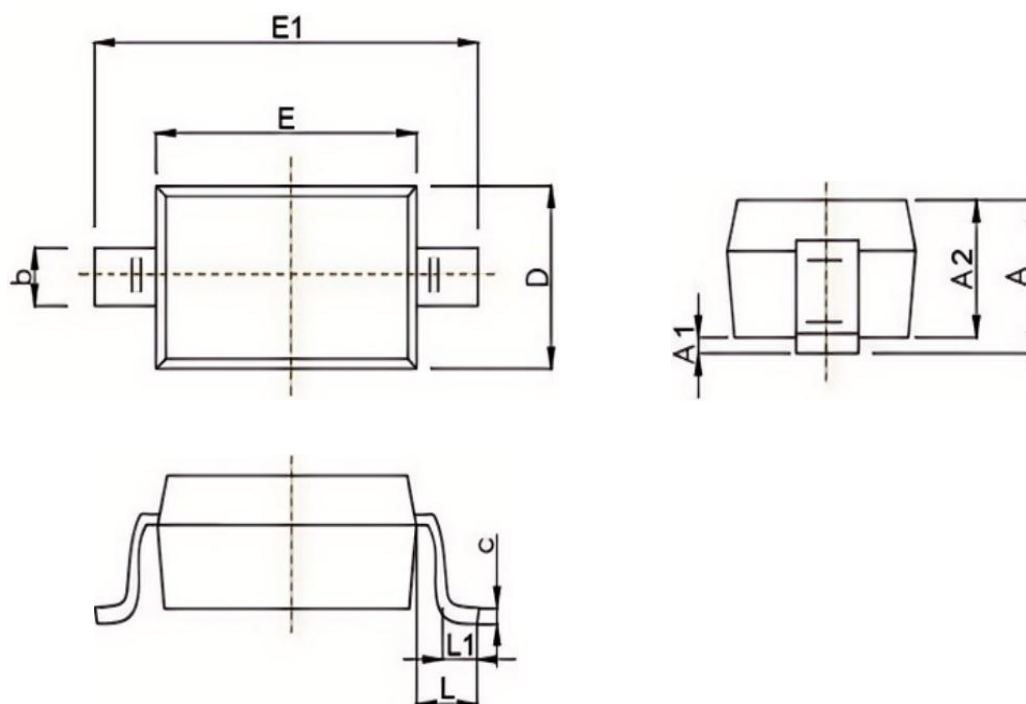


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Package Information

SOD-323

Dimensions in mm



Symbol	Dimensions In Millimeters	
	Min	Max
A		1.00
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
e	1.800	2.040
L	0.475 REF	
L1	0.250	0.400
θ	0°	8°



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