

Features

- This series is designed for average power 350W approximated ESD protection, different VRWM, different peak pulse power available
- Bi-directional configuration
- Working voltages: 3.0V, 5.0V, 8.0V, 12V, 15V, 24V
- Protects one I/O line
- Low clamping voltage
- Low leakage current
- Lead-free parts meet RoHS requirements
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101

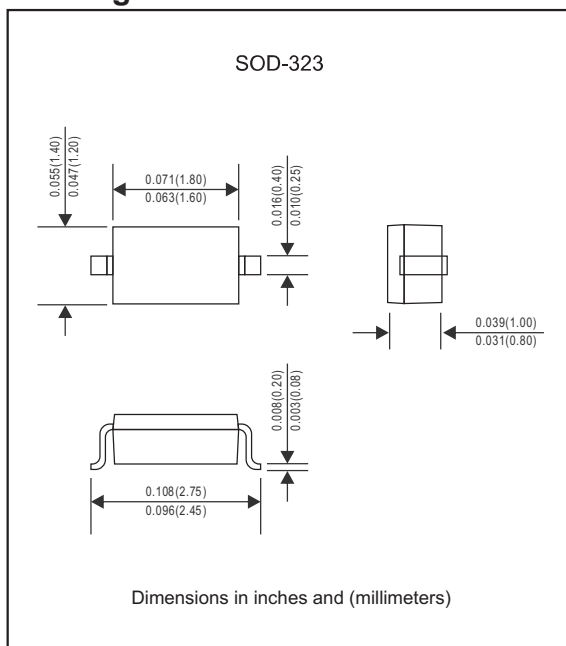
IEC compatibility

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

Applications

- Cell phone handsets and accessories
- Microprocessor based equipment
- Personal digital assistants (PDA's)
- Notebooks, desktops, and servers
- Portable instrumentation
- Peripherals
- USB interface

Package outline



Mechanical data

- Epoxy : UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-323
- Terminals :Plated terminals, solderable per MIL-STD-750, Method 2026
- Mounting Position : Any

Maximum ratings (at $T_A=25^\circ\text{C}$ unless otherwise noted)

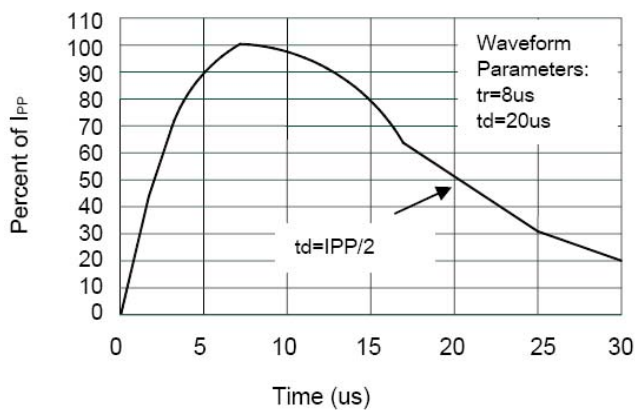
Parameter	Symbol	Value	Unit
Lead soldering temperature	T_L	260 (10 sec.)	$^\circ\text{C}$
Operating junction temperature range	T_J	-55 to +125	$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^\circ\text{C}$

Electrical characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

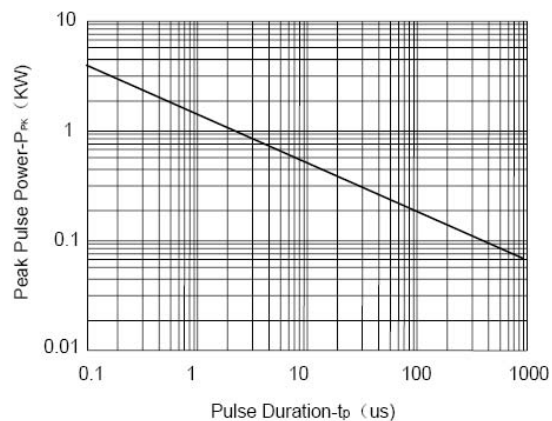
Part No. (Note 1)	VRWM (V) Max.	VBR(V)@IT Min.	IT (mA)	Vc(V) @IPP=1.0A Max.	IPP (A)	Vc(V) @ IPP Max.	IR(μA) leakage current@VRWM Max.	Cj(pF) (Note 2) Typ.
GBLC03C-Q1	3.0	3.6	1.0	7.0	8	13.9	2	0.8
GBLC05C-Q1	5.0	6.0	1.0	9.8	8	20.0	1	0.8
GBLC08C-Q1	8.0	8.5	1.0	13.5	8	23.0	1	0.8
GBLC12C-Q1	12.0	13.3	1.0	21.0	6	30.0	1	0.8
GBLC15C-Q1	15.0	16.7	1.0	25.0	5	40.0	1	0.8
GBLC24C-Q1	24.0	26.7	1.0	43.0	3	56.0	1	0.8

Notes 1: Part numbers with an additional "C" suffix are bi-directional devices, i.e., GBLC03C
 2: Off-state capacitance 1MHz, zero dc bias.

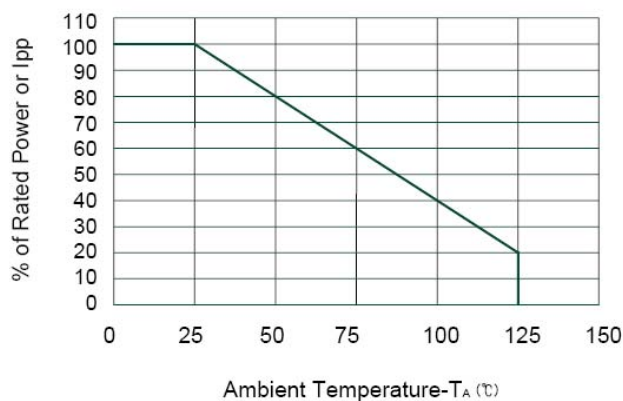
Rating and characteristic curves



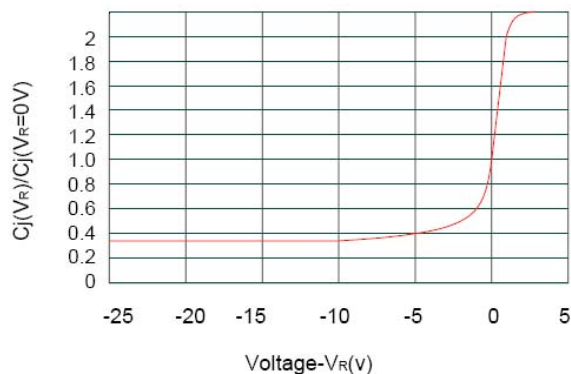
Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time

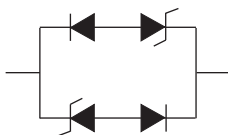


Power Derating Curve



Junction Capacitance vs. Reverse Voltage

Pinning information

Pin	Simplified outline	Symbol
Bi-Directional		

Marking

Type number	Marking code
GBLC03C-Q1	CC/CA1
GBLC05C-Q1	AC/5BLC
GBLC08C-Q1	BC/8BLC
GBLC12C-Q1	ABLC
GBLC15C-Q1	EC/BBLC
GBLC24C-Q1	HC/CBLC