

### Features

- This series is designed for average power 350W approximated ESD protection, different  $V_{RWM}$ , 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

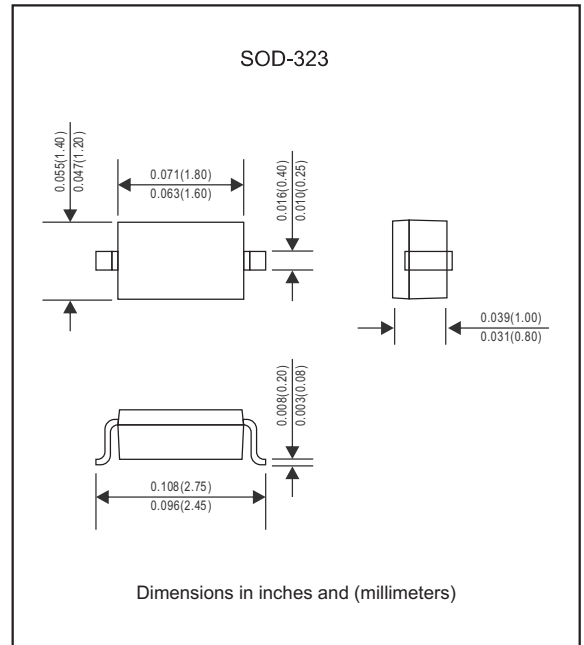
### IEC compatibility

- IEC61000-4-2 (ESD)  $\pm 15kV$  (air),  $\pm 8kV$  (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 $T_A=25^\circ C$ unless otherwise noted)

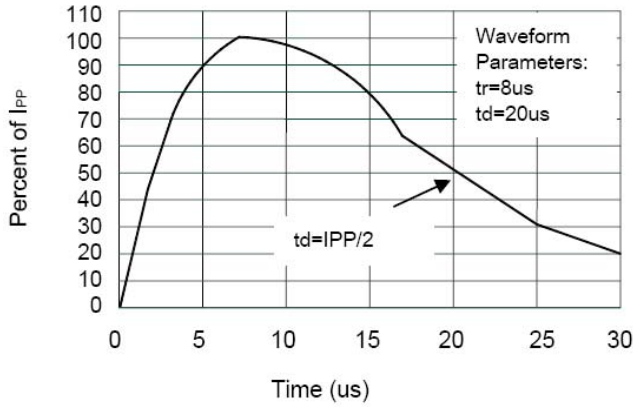
Parameter	Symbol	Value	Unit
Lead soldering temperature	$T_L$	260 (10 sec.)	$^\circ C$
Operating junction temperature range	$T_J$	-55 to +125	$^\circ C$
Storage temperature range	$T_{STG}$	-55 to +150	$^\circ C$

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

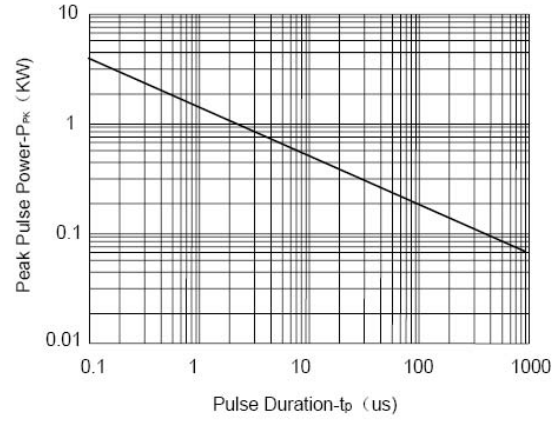
Part No. (Note 1)	$V_{RWM}$ (V)	$V_{BR}(V)@I_T$	$I_T$ (mA)	$V_C(V)$ @ $I_{PP}=1.0A$	$I_{PP}$ (A)	$V_C(V)$ @ $I_{PP}$	$I_r(\mu A)$ leakage current@ $V_{RWM}$	$C_j(pF)$ (Note 2)
	Max.	Min.		Max.		Max.	Max.	Typ.
GBLC03C-Q1	3.0	3.6	1.0	7.0	8	13.9	2	0.8
GBLC05C-Q1	5.0	6.0	1.0	9.8	8	20.0	1	0.8
GBLC08C-Q1	8.0	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.

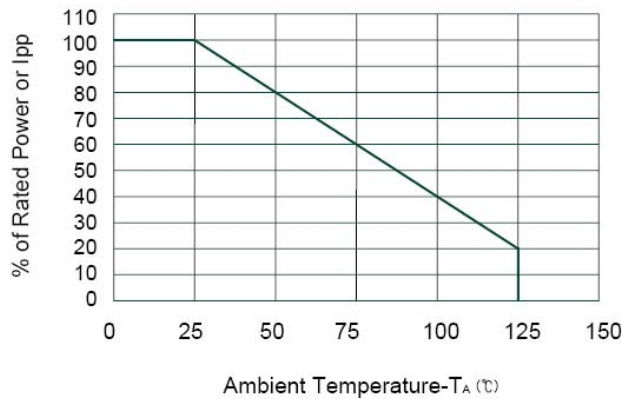
### Rating and characteristic curves



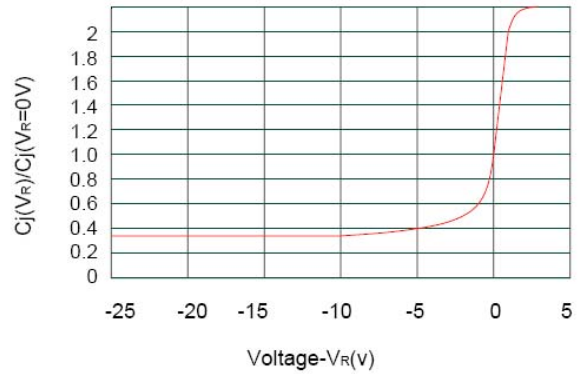
**Pulse Waveform**



**Non-Repetitive Peak Pulse Power vs. Pulse Time**


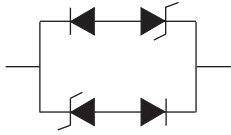


**Power Derating Curve**



**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	AB/ABLC
GBLC15C-Q1	EC/BBLC
GBLC24C-Q1	HC/CBLC