

### FEATURES

- 450 watts peak pulse power per line ( $t_p=8/20\mu s$ )
- Protects one bi-directional I/O line
- Low clamping voltage
- Working voltage: 36V
- Low leakage current
- RoHS compliant
- Compliant to Halogen-free

### MAIN APPLICATIONS

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

### PROTECTION SOLUTION TO MEET

- IEC61000-4-2 (ESD)  $\pm 30kV$  (air),  $\pm 30kV$  (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (lightning) 6A (8/20 $\mu s$ )

### MECHANICAL CHARACTERISTICS

- SOD-323 package
- Molding compound flammability rating: UL 94V-0
- Lead finish: lead free

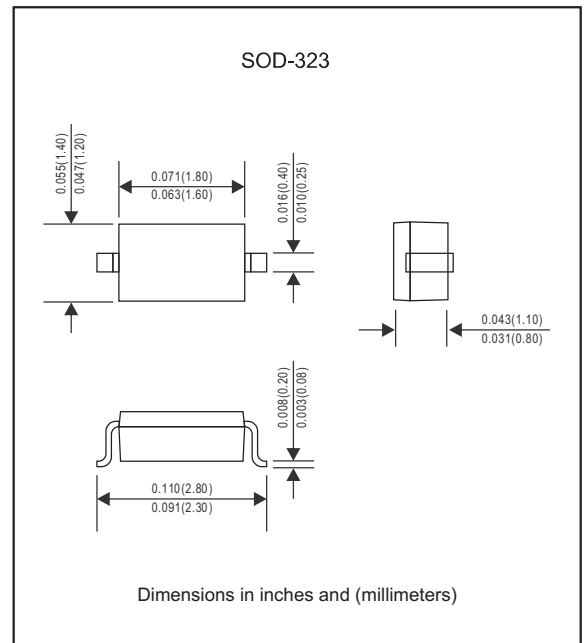
### ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ C$ , RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation at 8/20 $\mu s$ waveform	$P_{PP}$	450	W
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$	+/- 30	kV
ESD per IEC 61000-4-2 (Contact)		+/- 30	
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 ( $T_A=25^\circ C$ )

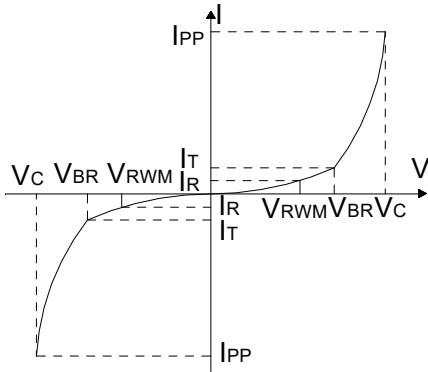
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	$V_{RWM}$				36	V
Reverse breakdown voltage	$V_{BR}$	$I_T=1mA$	40			V
Reverse leakage current	$I_R$	$V_{RWM}=36V$			1	$\mu A$
Clamping voltage	$V_C$	$I_{PP}=6A$ , $t_p=8/20\mu s$			75	V
Junction capacitance	$C_J$	$V_{RWM}=0V$ , $f=1MHz$		1.0		pF

### PACKAGE OUTLINE

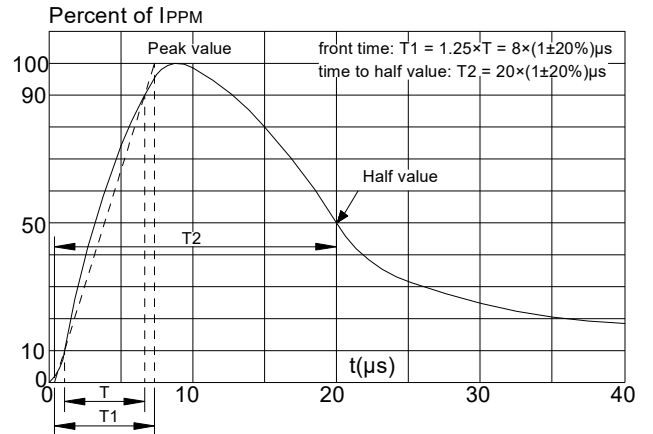


### RATINGS AND V-I CHARACTERISTICS CURVES ( $T_A=25^\circ\text{C}$ , unless otherwise noted)

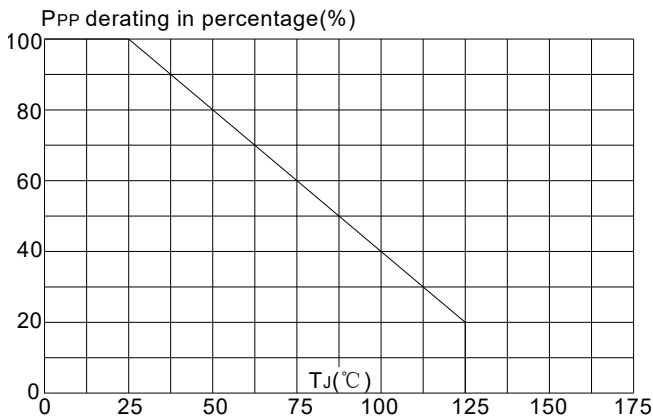
**FIG.1: V- I curve characteristics (Bi-directional)**



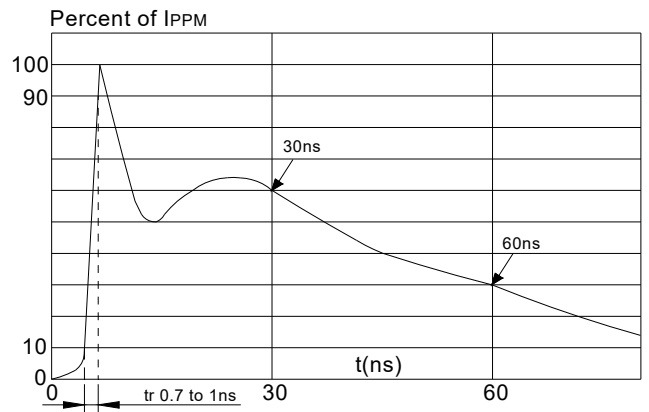
**FIG.2: Pulse waveform (8/20 $\mu\text{s}$ )**




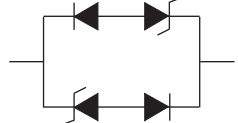
**FIG.3: Pulse derating curve**



**FIG.4: ESD clamping (30kV contact)**



### PINNING INFORMATION

Pin	Simplified outline	Symbol
Bi-Directional		

### MARKING

Type number	Marking code
GBLC36C	DBLC