

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
- Suffix "-Q1" for AEC-Q101

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 μs)

MECHANICAL CHARACTERISTICS

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

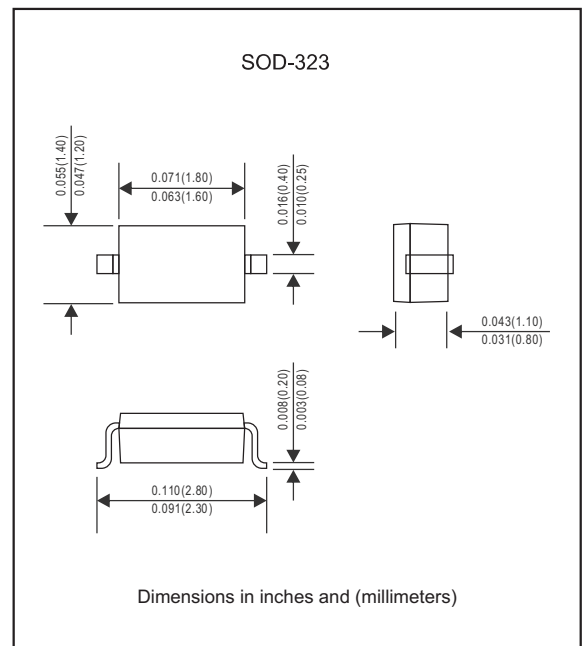
ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ C$, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation at 8/20 μs 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	μA
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)

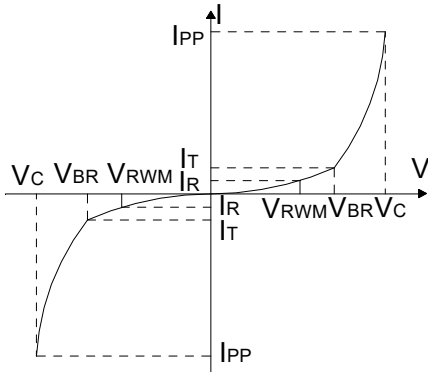


FIG.2: Pulse waveform (8/20 μs)

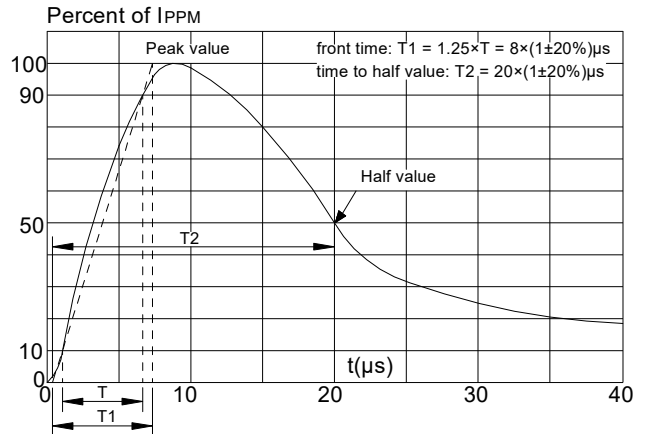


FIG.3: Pulse derating curve

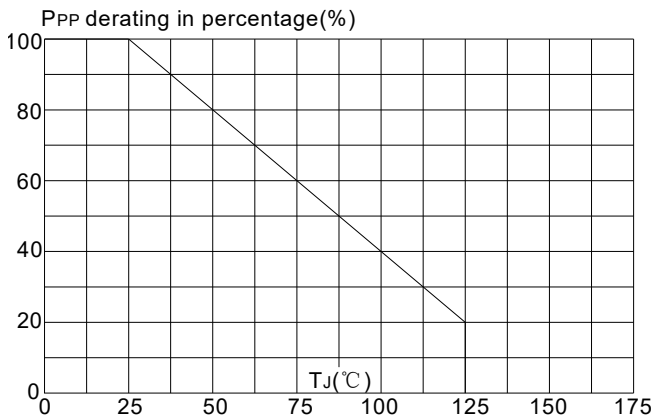
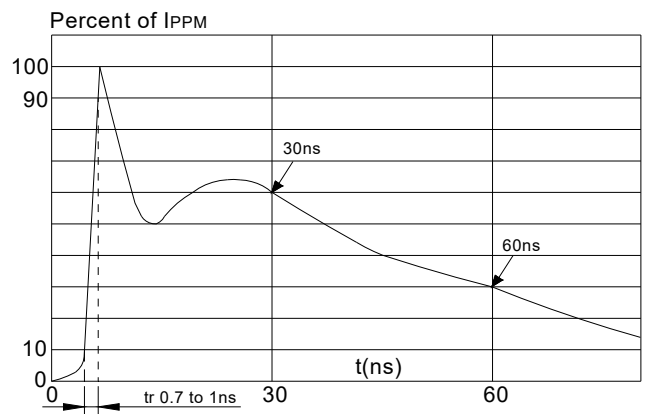

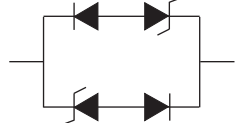


FIG.4: ESD clamping (30kV contact)



PINNING INFORMATION

Pin	Simplified outline	Symbol
Bi-Directional		

MARKING

Type number	Marking code
GBLC36C-Q1	DB