GBLC03C

Bidirectional Ultra Low Capacitance TVS Array

FEATURES

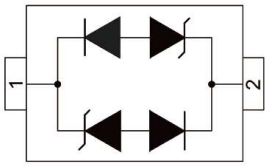
- 350 watts peak pulse power per line (t_P=8/20μs)
- Protects one bi-directional I/O line
- Low clamping voltage
- Working voltages: 3.3V
- Low leakage current
- RoHS compliant



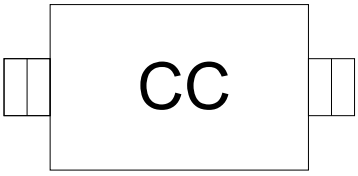
SOD-323

MAIN APPLICATIONS

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



PIN Configuration



Marking Code

PROTECTION SOLUTION TO MEET

- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- IEC61000-4-5 (lightning) 20A (8/20us)

MECHANICAL CHARACTERISTICS

- SOD-323 package
- Molding compound flammability rating: UL 94V-0
- Weight 5 milligrams (approximate)
- Quantity per reel: 3,000pcs
- Lead finish: lead free
- Marking code:CC

ABSOLUTE MAXIMUM RATINGS (T_A=25℃, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation on 8/20 μs waveform	P_{PP}	350	W
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	+/- 30 +/- 30	kV
Lead soldering temperature	T_L	260 (10 sec.)	℃
Operating junction temperature range	T_J	-55 to +125	℃
Storage temperature range	T_{STG}	-55 to +150	℃

ELECTRICAL CHARACTERISTICS (T_A=25℃)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	V_{RWM}				3.3	V
Reverse breakdown voltage	V_{BR}	I_T =1mA	4.2		5.7	V
Reverse leakage current	I_R	V_{RWM} = 3.3V			1	μA
Clamping voltage	V_C	I_{PP}=1A, tp =8/20μs			9.0	V
		I_{PP}=20A, tp =8/20μs			17.5	V
Junction capacitance	C_J	V_{RWM} = 0V, f = 1MHz		0.7		pF

RATINGS AND V-I CHARACTERISTICS CURVES (T_A=25℃, unless otherwise noted)

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

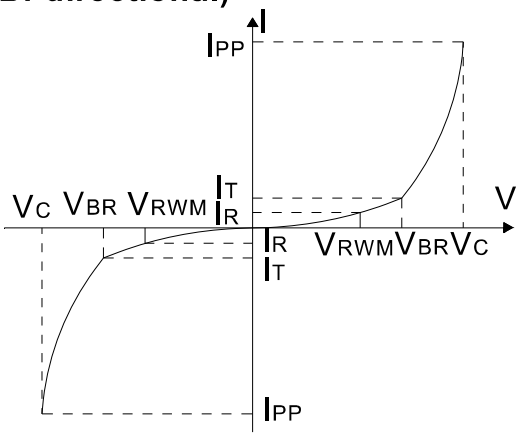


FIG.2: Pulse waveform (8/20μs)

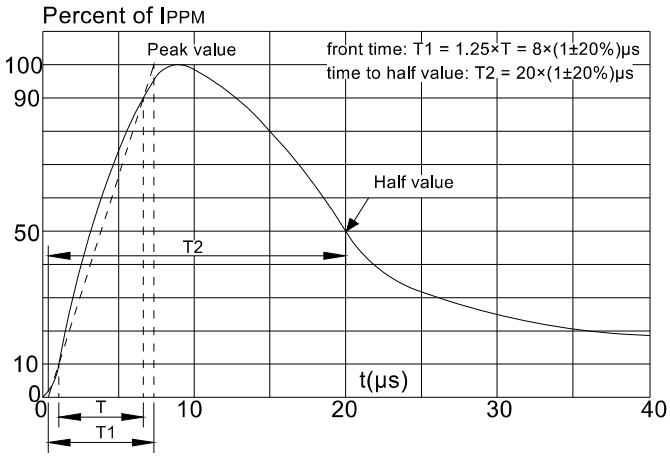


FIG.3: Pulse derating curve

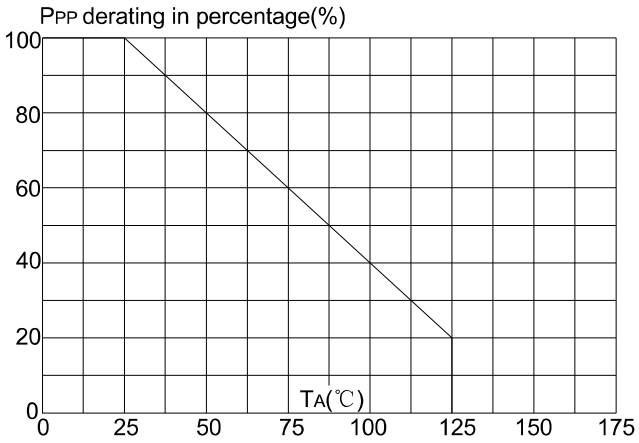
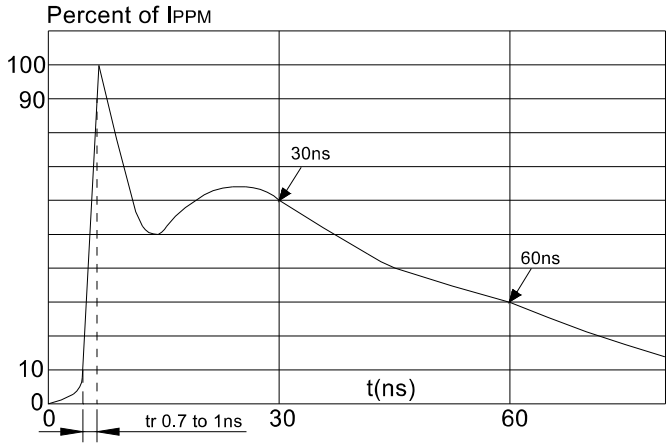
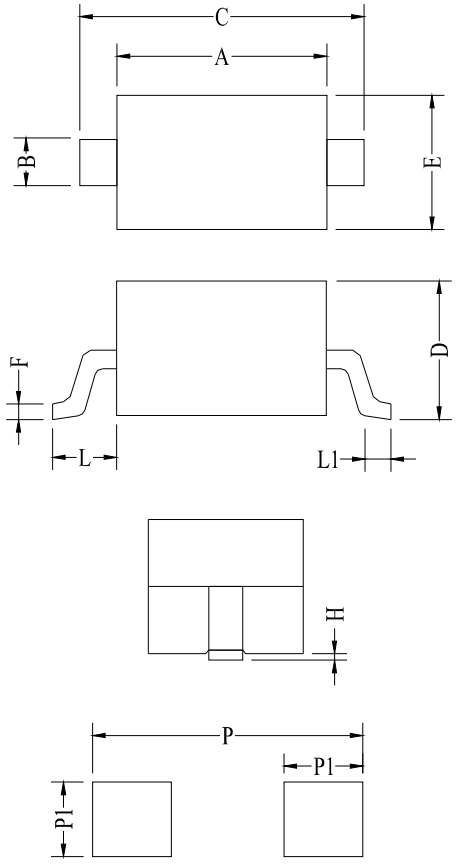


FIG.4: ESD clamping



PACKAGE MECHANICAL DATA



Land Pattern

Symbol	Millimeter		Inches	
	Min	Max	Min	Max
A	1.60	1.80	0.063	0.071
B	0.25	0.35	0.010	0.014
C	2.50	2.70	0.098	0.106
D	0.00	1.00	0.000	0.039
E	1.20	1.40	0.047	0.055
F	0.08	0.15	0.003	0.006
L	0.475REF		0.019REF	
L1	0.25	0.40	0.010	0.016
H	0.00	0.10	0.000	0.004
P	3.00		0.118	
P1	0.80		0.031	