

Features

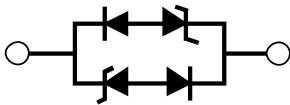
- Low Capacitance
- Low Leakage Current
- Low Clamping Voltage
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

IEC61000-4-2(ESD)	Air	±25KV
	Contact	±20KV
Peak Pulse Power (8/20µs)	PPK	350W
Operating Junction Temperature Range	T _J	-55°C to +125°C
Storage Temperature Range	T _{STG}	-55°C to +150°C

Note:
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Internal Structure



Marking Code

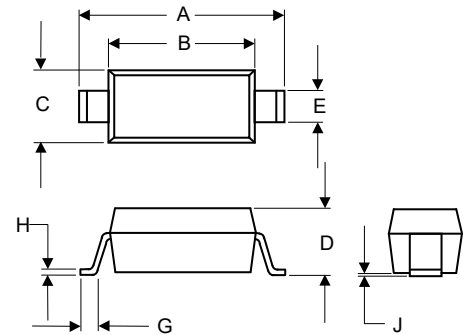


XX:Device Code

MCC Part Number	Device Code
GBLC03CD3B	3B
GBLC05CD3B	5B
GBLC08CD3B	8B
GBLC24CD3B	4B

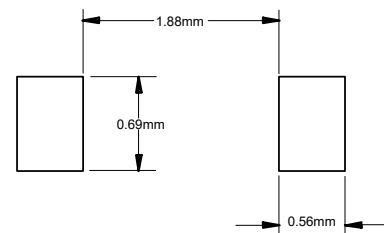
ESD Protection Device

SOD-323



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.090	0.107	2.30	2.70	
B	0.063	0.071	1.60	1.80	
C	0.045	0.053	1.15	1.35	
D	0.031	0.045	0.80	1.15	
E	0.010	0.016	0.25	0.40	
G	0.004	0.018	0.10	0.45	
H	0.004	0.010	0.10	0.25	
J	-----	0.006	-----	0.15	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

GBLC03CD3B

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	4.2			V
Reverse Leakage Current	I_R	$V_{RWM} = 3.3V$			0.5	μA
Clamping Voltage ^{Note1}	V_C	$I_{PP} = 1A, t_p = 8/20\mu s$			7	V
Clamping Voltage ^{Note1}	V_C	$I_{PP} = 21A, t_p = 8/20\mu s$			20	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		0.5		pF

GBLC05CD3B

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	6.1			V
Reverse Leakage Current	I_R	$V_{RWM} = 5V$			0.5	μA
Clamping Voltage ^{Note1}	V_C	$I_{PP} = 1A, t_p = 8/20\mu s$			8.5	V
Clamping Voltage ^{Note1}	V_C	$I_{PP} = 18A, t_p = 8/20\mu s$			22	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		0.5		pF

GBLC08CD3B

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				8	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	9.4			V
Reverse Leakage Current	I_R	$V_{RWM} = 8V$			0.5	μA
Clamping Voltage ^{Note1}	V_C	$I_{PP} = 1A, t_p = 8/20\mu s$			13.4	V
Clamping Voltage ^{Note1}	V_C	$I_{PP} = 21A, t_p = 8/20\mu s$			26	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		0.5		pF

GBLC24CD3B

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				24	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	26.1			V
Reverse Leakage Current	I_R	$V_{RWM} = 24V$			0.5	μA
Clamping Voltage ^{Note1}	V_C	$I_{PP} = 1A, t_p = 8/20\mu s$			43	V
Clamping Voltage ^{Note1}	V_C	$I_{PP} = 6A, t_p = 8/20\mu s$			58	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		0.5		pF

Note:

1. Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

Curve Characteristics

Fig. 1 - 8 X 20µs Pulse Waveform

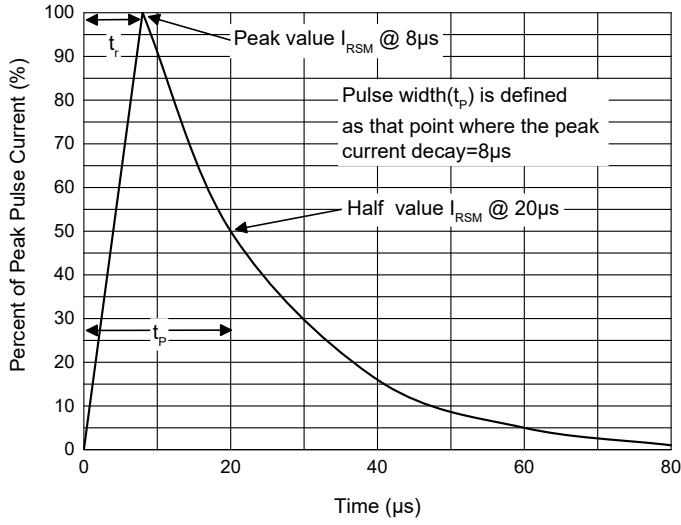


Fig. 2 - Capacitance Characteristics

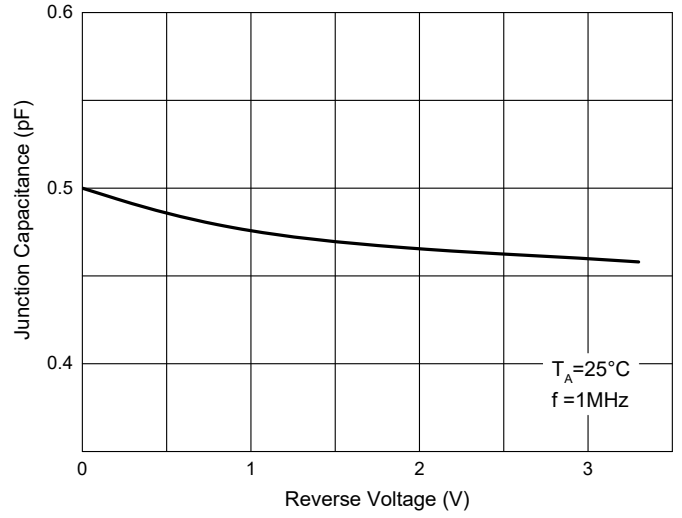


Fig. 3 - Clamping Voltage Characteristics

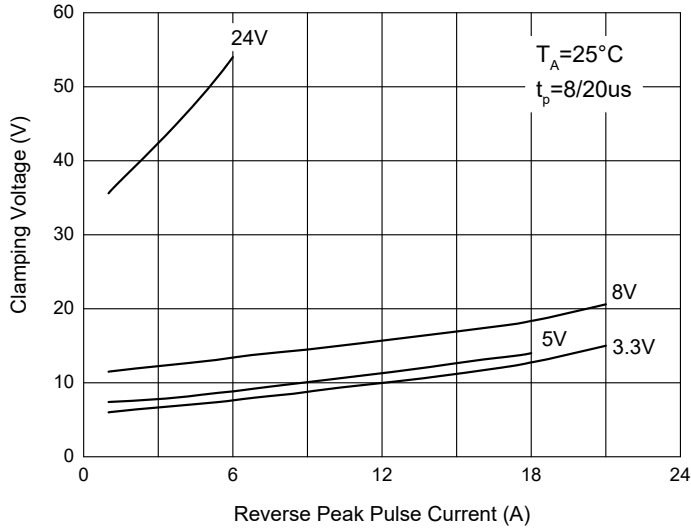


Fig. 4 - Pulse Derating Curve

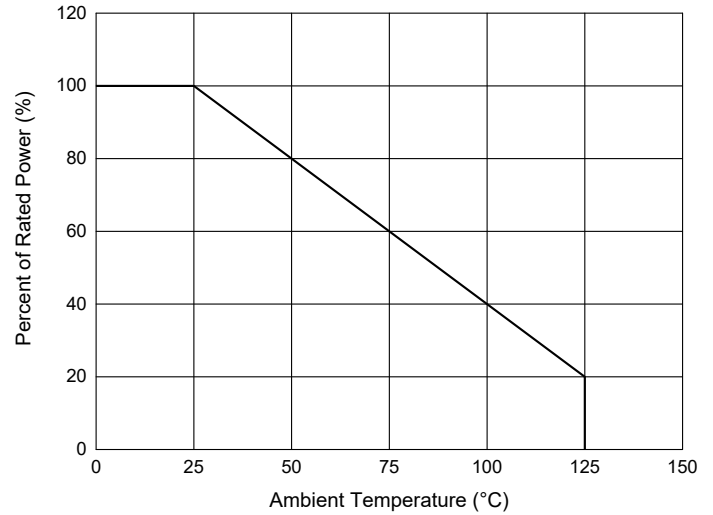
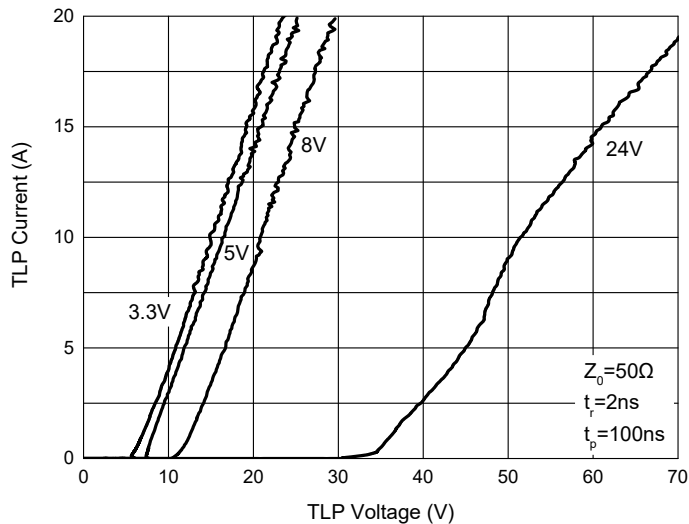


Fig. 5 - TLP Measurement



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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