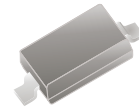


GBLC03C-HF Thru. GBLC24C-HF

RoHS Device
Halogen Free

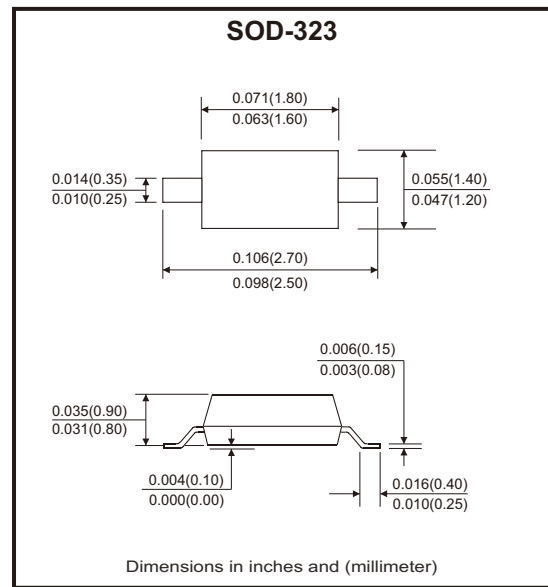


Features

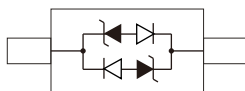
- Protects one I/O line (bidirectional).
- Low clamping voltage.
- Working voltages: 3V, 5V, 8V, 12V, 15V, 24V
- Low clamping voltage.
- Response time is < 1ns
- IEC 61000-4-2 (ESD) ± 30 kV (air/contact)
IEC 61000-4-4 (EFT) 40A (5/50ns)
- High temperature soldering guaranteed:
260°C/10s

Mechanical data

- Case: SOD-323, molded plastic.
- Terminals: Tin plated, solderable per MIL-STD-750, method 2026.
- Mounting position: Any.



Circuit Diagram



Maximum Rating (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	$T_P = 8/20\mu s$	P_{PP}	See next table	W
Peak pulse current	$T_P = 8/20\mu s$	I_{PP}	See next table	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	± 30	kV
Lead soldering temperature		T_L	260	°C
Operating junction temperature range		T_J	-55 to +150	°C
Storage temperature range		T_{STG}	-55 to +150	°C

Electrical Characteristics (at TA=25°C unless otherwise noted)

Part No.	Rated stand-off voltage	Min. breakdown voltage @ $I_T = 1\text{mA}$	Max. clamping voltage @ $I_{PP} = 1\text{A}$	Max. clamping voltage		Peak pulse current	Max. leakage current @ V_{RWM}	Typ. capacitance @ $V_R=0\text{V}, 1\text{MHz}$
	V_{RWM} (V)	V_{BR} (V)	V_C (V)	V_C (V)	I_{PP} (A)	P_{PP} (W)	I_R (μA)	C_J (pF)
GBLC03C-HF	3.0	4.0	8.0	20	19	380	5	0.8
GBLC05C-HF	5.0	6.0	9.8	20	18	360	1	0.8
GBLC08C-HF	8.0	8.5	13.4	24	18	432	1	0.8
GBLC12C-HF	12	13.3	19	28.6	12	343	1	0.8
GBLC15C-HF	15	16.7	24	31.8	10	318	1	0.8
GBLC24C-HF	24	26.7	43	56	6	336	1	0.8

Typical Rating and Characteristic Curves (GBLCxxC-HF Series)

Fig.1 - 8/20 μ s Waveform per IEC 61000-4-5

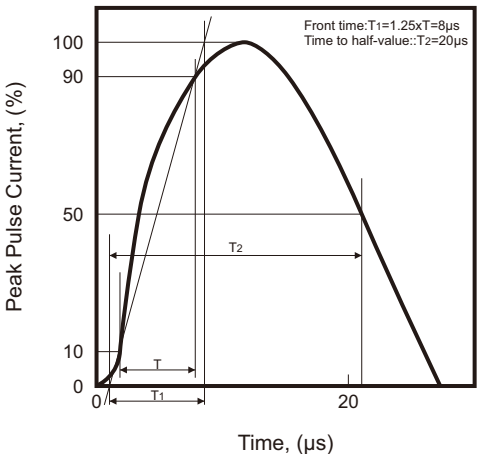


Fig.2 - Contact Discharge Current Waveform per IEC 61000-4-2

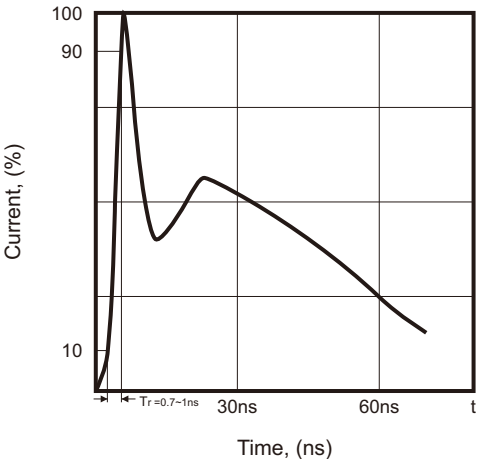


Fig.3 - Voltage vs Capacitance

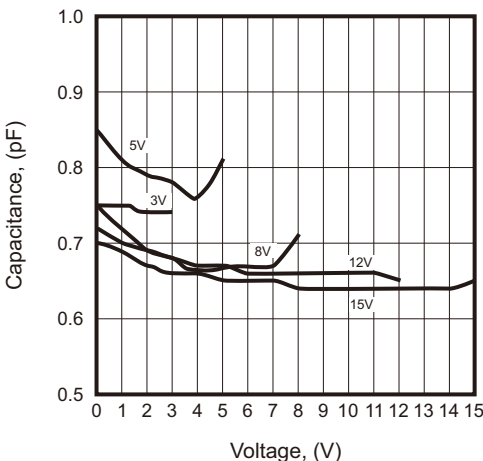


Fig.4 - Voltage vs Capacitance

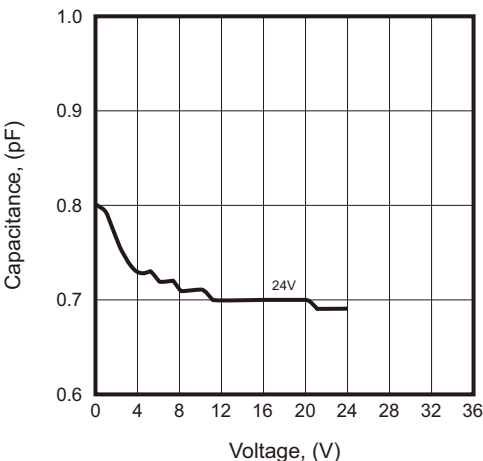


Fig.5 - Clamping Voltage vs Peak Pulse Current

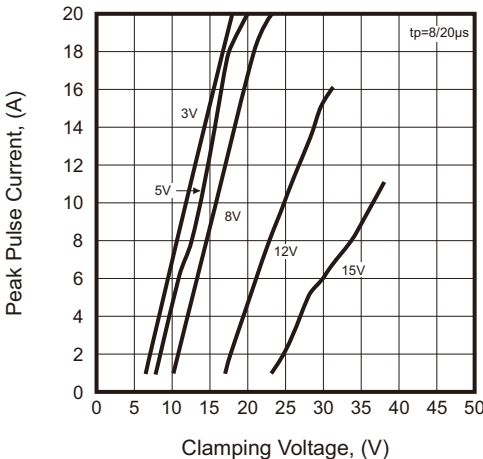
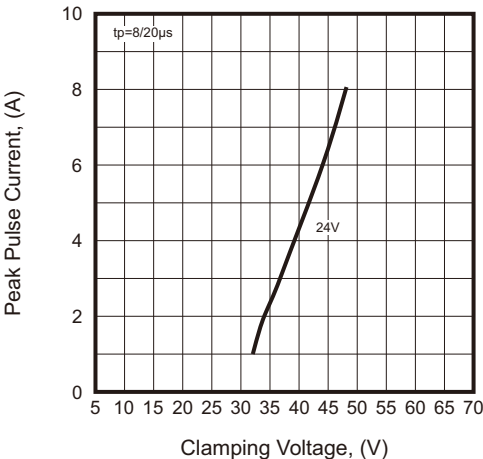
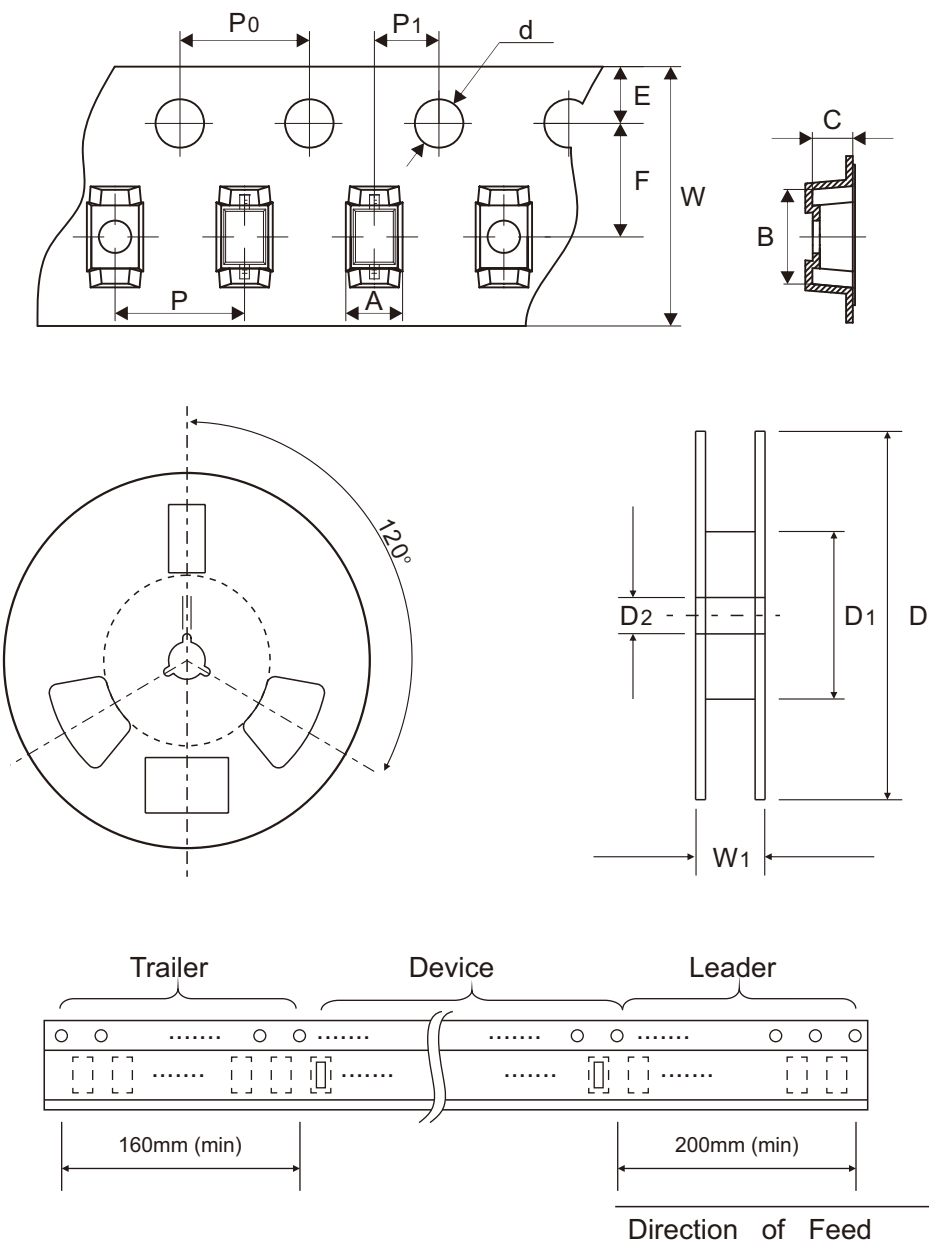


Fig.6 - Clamping Voltage vs Peak Pulse Current



Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.46 ± 0.05	2.90 ± 0.05	1.25 ± 0.05	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.057 ± 0.002	0.114 ± 0.002	0.049 ± 0.002	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-323	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.484 ± 0.039

Marking Code

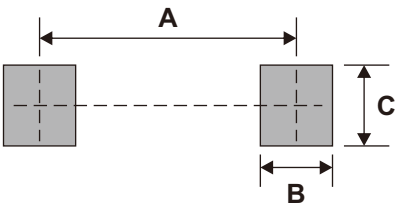
Part Number	Marking Code
GBLC03C-HF	CC
GBLC05C-HF	AC
GBLC08C-HF	BC
GBLC12C-HF	DC
GBLC15C-HF	EC
GBLC24C-HF	HC



XX = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	2.225	0.088
B	0.625	0.025
C	0.85	0.033



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-323	3,000	7