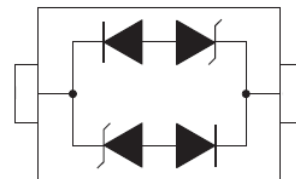


Features

- Unidirectional & bidirectional configurations
- Protects one power or I / O Port
- ESD protection > 40 kV
- Low clamping voltage
- MSL Class 1 compatible
- Available in multiple voltage types ranging from 3V to 24V
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 Standards

HF



Applications

- Cellular phones
- Handheld - Wireless Systems
- Personal Digital Assistant (PDA)
- USB interface



Mechanical Data

- Case: SOD-323
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin-Plated Leads, Solderability-per MIL-STD-202, Method 208

SOD-323

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
TGBLC03C	SOD-323	3000 pcs / Tape & Reel	3C
TGBLC05C	SOD-323	3000 pcs / Tape & Reel	5C
TGBLC08C	SOD-323	3000 pcs / Tape & Reel	8C
TGBLC12C	SOD-323	3000 pcs / Tape & Reel	2C
TGBLC15C	SOD-323	3000 pcs / Tape & Reel	6C
TGBLC18C	SOD-323	3000 pcs / Tape & Reel	1C
TGBLC24C	SOD-323	3000 pcs / Tape & Reel	4C

Maximum Ratings (@ T_c = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp = 8 / 20μs)	P _{PP}	350	W
Thermal Resistance Junction-to-Air ^{*1}	R _{θJA}	460	°C/W
Thermal Resistance Junction-to-Case ^{*1}	R _{θJC}	290	°C/W
Thermal Resistance Junction-to-Lead ^{*1}	R _{θJL}	310	°C/W
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Note 1: The data tested by surface mounted on a minimum recommended FR-4 board

Electrical Characteristics (@ $T_c = 25^\circ\text{C}$ unless otherwise specified)

Part Number	Rated Stand-off Voltage V_{RWM} (V)	Minimum Breakdown Voltage V_{BR} (V)	@ I_T (mA)	Maximum Clamping Voltage V_C (V)	@ I_{PP} (A)	Maximum Clamping Voltage V_C (V)	@ I_{PP} (A)	Maximum Leakage Current I_R (μA) @ V_{RWM}	Typical Capacitance C_J (pF) @ $V_R = 0\text{V}$, 1MHz
TGBLC03C	3.3	4.0	1	7.0	1	19.0	20	0.5	1.0
TGBLC05C	5.0	6.0	1	9.8	1	18.3	17	0.5	1.0
TGBLC08C	8.0	8.5	1	13.4	1	18.5	15	0.5	1.0
TGBLC12C	12.0	13.3	1	19.0	1	28.6	11	0.5	1.0
TGBLC15C	15.0	16.7	1	24.0	1	31.8	10	0.5	1.0
TGBLC18C	18.0	20.0	1	29.0	1	45.0	8	0.5	1.0
TGBLC24C	24.0	26.7	1	43.0	1	56.0	6	0.5	1.0

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

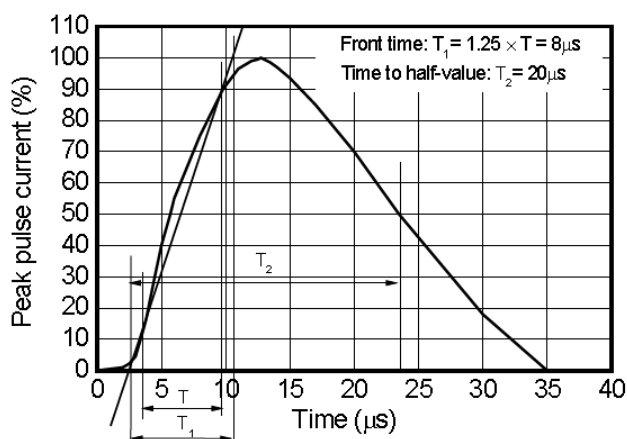


Fig1. 8/20 μs waveform per IEC61000-4-5

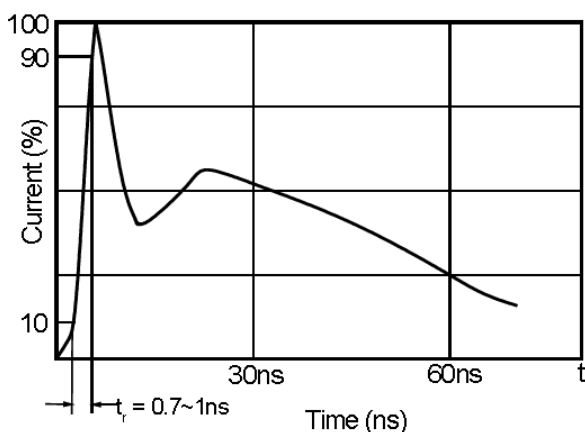
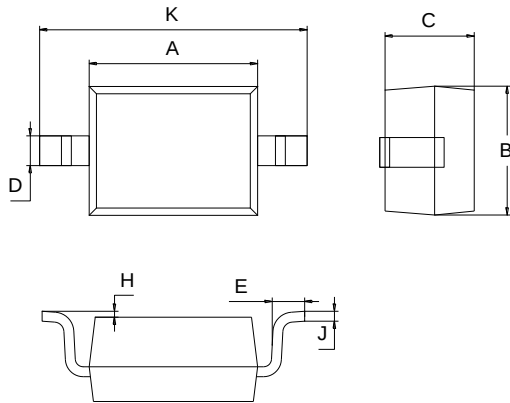


Fig2. ESD pulse waveform according to IEC61000-4-2

Package Outline Dimensions (Unit: mm)



SOD-323		
Dimension	Min.	Max.
A	1.60	1.80
B	1.20	1.40
C	0.80	0.90
D	0.25	0.35
E	0.22	0.42
H	0.02	0.10
J	0.05	0.15
K	2.55	2.75

Mounting Pad Layout (Unit: mm)

SOD-323

