

# MSKSEMI

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



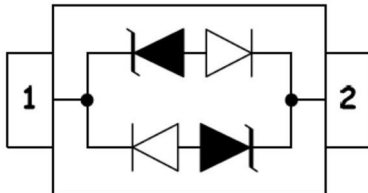
PLED

Product data sheet



SOD-323

## PIN CONFIGURATION



## FEATURES

- ◇ Transient protection for high-speed data lines  
IEC 61000-4-2 (ESD)  $\pm 30\text{kV}$  (Contact)  
 $\pm 30\text{kV}$  (Air)  
IEC 61000-4-4 (EFT) 40A (5/50 ns)
- ◇ Protects one I/O line (bidirectional)
- ◇ Working voltages : 3V, 5V, 8V, 12V, 15V, 18V, 20V, 24V, 36V
- ◇ Low clamping voltage
- ◇ Low leakage current
- ◇ Response time is  $< 1\text{ ns}$

## MACHANICAL DATA

- ◇ SOD-323 package
- ◇ Flammability Rating: UL 94V-0
- ◇ Packaging: Tape and Reel
- ◇ High temperature soldering guaranteed:  
 $260^\circ\text{C}/10\text{s}$
- ◇ Reel size: 7 inch
- ◇ MSL1

## APPLICATIONS

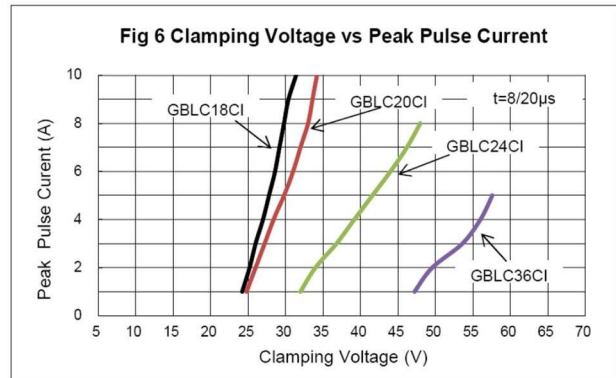
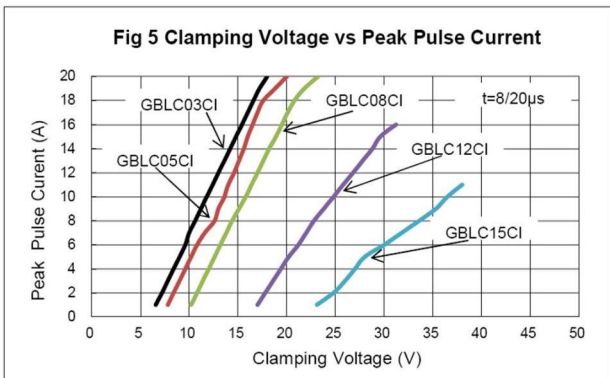
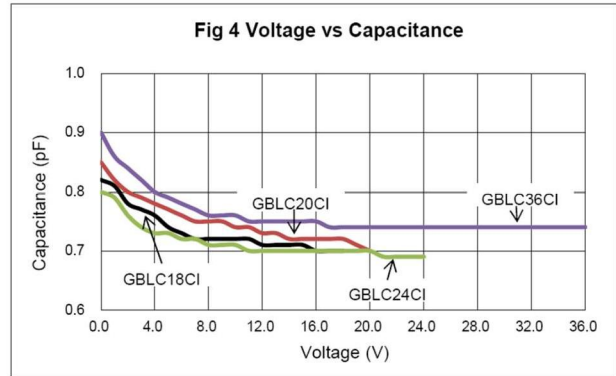
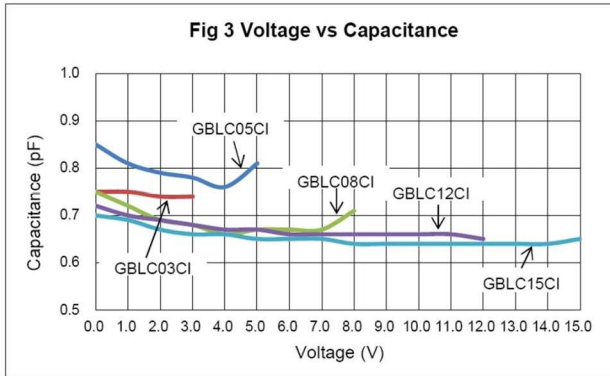
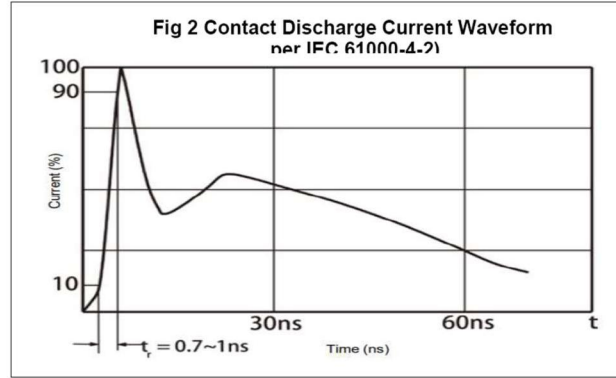
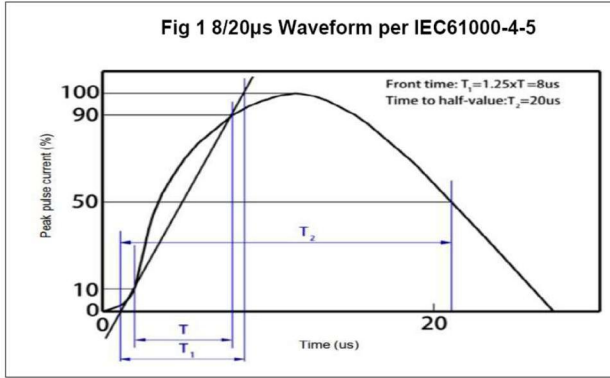
- ◇ Cell Phone Handsets and Accessories
- ◇ Microprocessor based equipment
- ◇ Personal Digital Assistants (PDA's)
- ◇ Notebooks, Desktops, and Servers
- ◇ Portable Instrumentation
- ◇ Peripherals
- ◇ USB Interface

**Bi-directional Ultra Low Capacitance TVS Array**

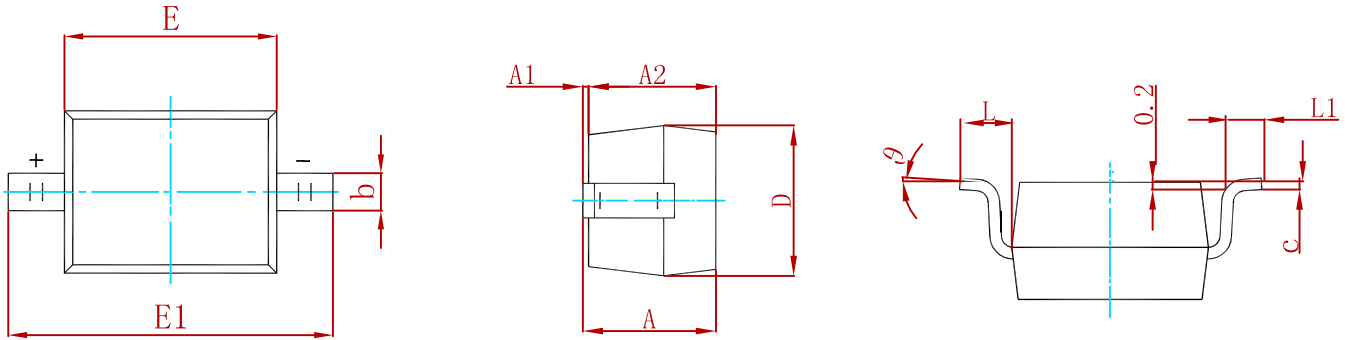
ABSOLUTE MAXIMUM RATING			
Symbol	Parameter	Value	Units
$V_{ESD}$	ESD per IEC 61000-4-2 (Contact)	±30	kV
	ESD per IEC 61000-4-2 (Air)	±30	
$P_{PP}$	Peak Pulse Power (8/20μs)	350	W
$T_{OPT}$	Operating Temperature	-55/+150	°C
$T_{STG}$	Storage Temperature	-55/+150	°C
$T_L$	Lead Soldering Temperature	260	°C

ELECTRICAL CHARACTERISTICS (Tamb=25°C)										
P/N	MARK	$V_{RWM}$	$V_B@1mA$	$V_C@1A$	$V_C@I_{pp}$		$V_C@I_{pp}$		$I_R$	$C_T$
		(V) Max	(V) Min	(V) Max	(V) Max	(A) I <sub>pp</sub>	(V) Max	(A) I <sub>pp</sub>	(μA) Max	(pF) Typ.
GBLC03CI	CC	3.0	4.0	7.0	13.9	8	20.0	20	5	0.8
GBLC05CI	AC	5.0	6.0	9.8	18.3	8	20.0	18	1	0.8
GBLC08CI	BC	8.0	8.5	13.4	18.5	8	24.0	18	1	0.8
GBLC12CI	DC	12.0	13.3	19.0	24.0	6	28.6	12	1	0.8
GBLC15CI	EC	15.0	16.7	24.0	29.0	5	31.8	10	1	0.8
GBLC18CI	FC	18.0	20.0	35.0	45.0	5	53.0	7	1	0.8
GBLC20CI	GC	20.0	22.0	38.0	45.0	4	55.0	7	1	0.8
GBLC24CI	HC	24.0	26.7	43.0	45.0	3	56.0	6	1	0.8
GBLC36CI	IC	36.0	40.0	60.0	65.0	2	75.0	4.5	1	0.8

**ELECTRICAL CHARACTERISTICS CURVE**

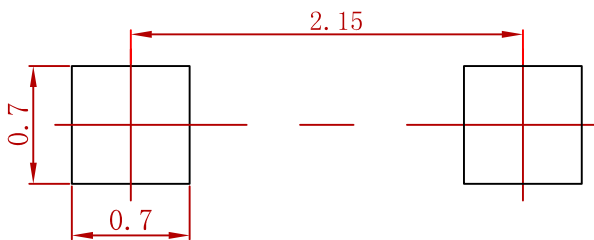


**PACKAGE MECHANICAL DATA**



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475 REF.		0.019 REF.	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

**Suggested Pad Layout**



- Note:**
1. Controlling dimension: in millimeters.
  2. General tolerance:  $\pm 0.05\text{mm}$ .
  3. The pad layout is for reference purposes only.

**REEL SPECIFICATION**

P/N	PKG	QTY
GBLCXXCI	SOD-323	3000

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