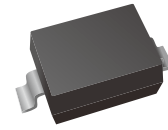


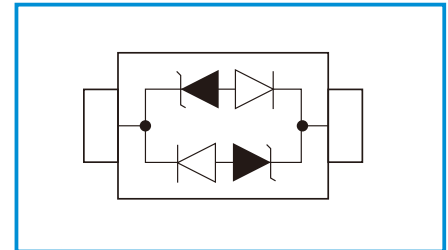
Bidirectional TVS Diode

Features

- IEC61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50 μs)
- IEC61000-4-5 (Lightning) 12A (8/20 μs)
- Protects one I/O line (bidirectional)
- Low clamping voltage
- Working voltages : 8V
- Low leakage current
- Response Time is < 1 ns



Functional Diagram



Mechanical 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

Applications

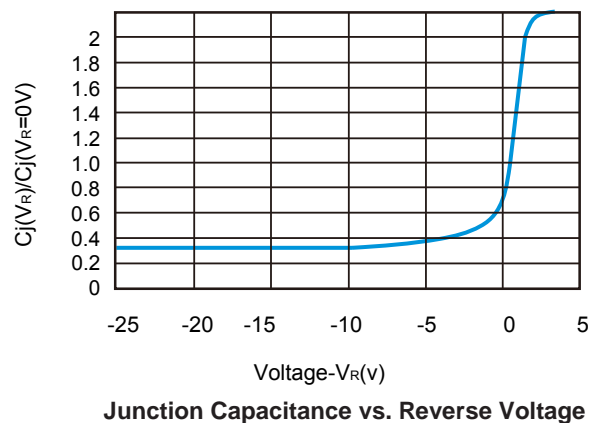
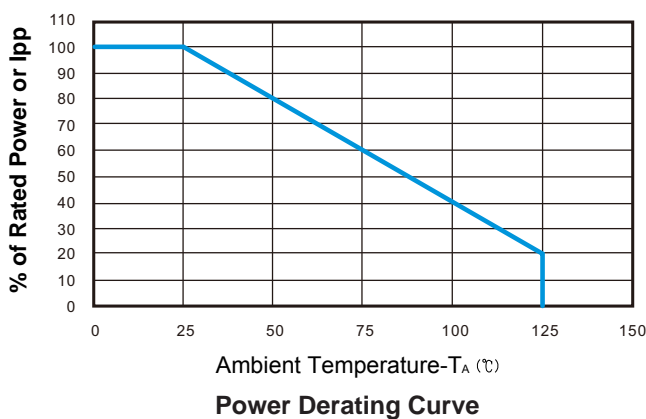
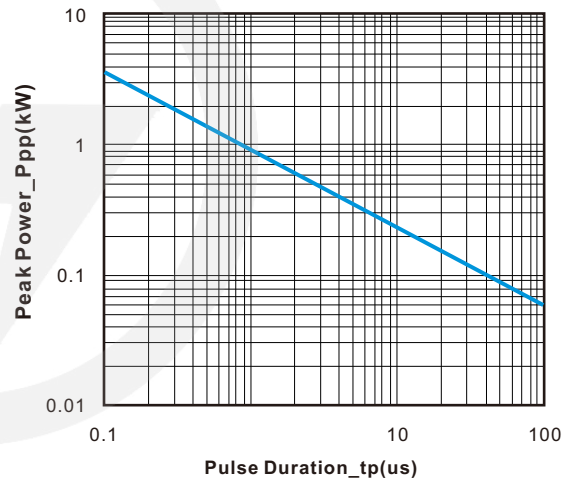
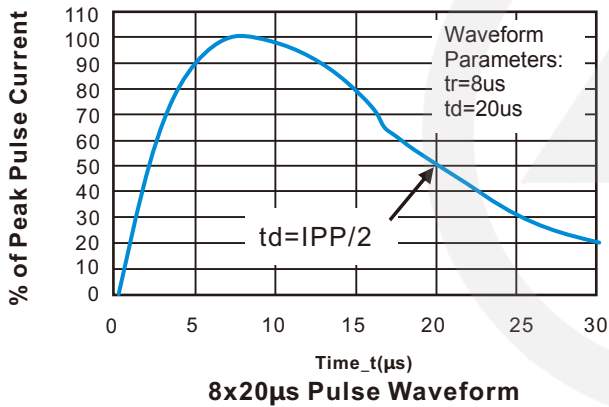
- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Peripherals
- USB Interface

Absolute Maximum Ratings (T_{amb}=25 $^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Value	Units
V _{ESD}	ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	± 30	kV
P _{PP}	Peak Pulse Power (8/20 μs)	350	W
T _{OPT}	Operating Temperature	-55/+150	$^{\circ}\text{C}$
T _{STG}	Storage Temperature	-55/+150	$^{\circ}\text{C}$
T _L	Lead Soldering Temperature	260	$^{\circ}\text{C}$

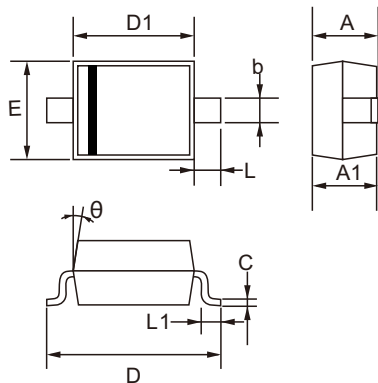
Electrical Characteristics(TA=25°C unless otherwise specified)

PART NUMBER	DEVICE MARKING	V _{RWM}	V _{B@1mA}	V _{C@1A}	V _{C@I_{pp}}		V _{C@I_{pp}}		I _R	C _T
		(V)	(V)	(V)	(V)	I _{pp}	(V)	I _{pp}	(μA)	(pF)
		Max	Min	Max	Max	(A)	Max	(A)	Max	Typ.
LTES08C01LG	BC	8.0	8.5	13.4	18.5	8	24.0	18	1	0.8

Characteristic Curves


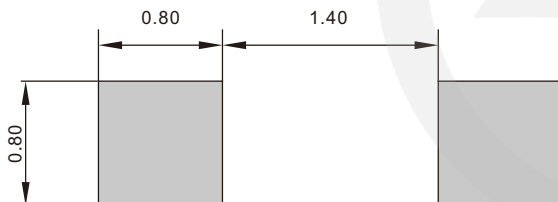
SOD-323 Package Outline

Unit: mm

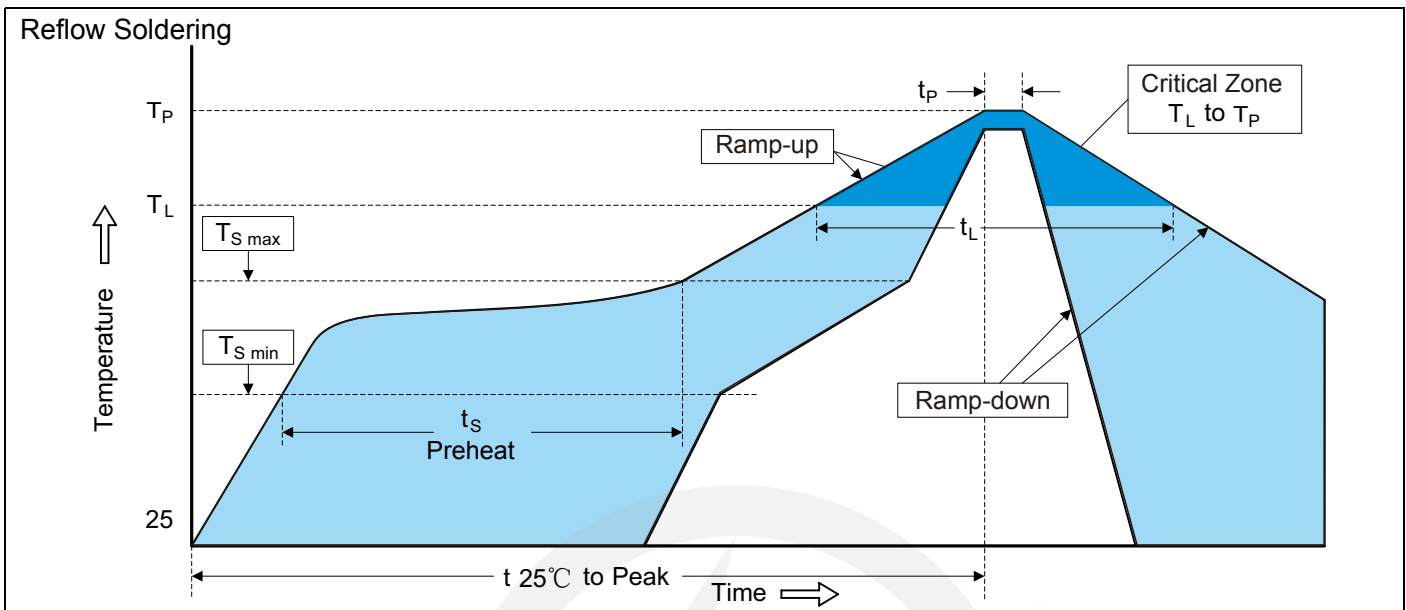


SYMBOL	DIMENSIONS	
	MIN.	MAX.
A	0.800	1.100
A1	0.800	0.900
b	0.250	0.400
C	0.080	0.177
D	2.300	2.800
D1	1.400	1.800
E	1.150	1.400
L1	0.100	0.400
L	0.475 TYP.	
θ	8°	

SOD-323 Suggested Pad Layout



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

Recommended Soldering Conditions

Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.
Preheat -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_s)	150°C 200°C 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	3°C/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	217°C 60-150 seconds
Peak Temperature (T_P)	260°C
Time within 5°C of actual Peak Temperature (t_P)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

7" Reel


D2	$\Phi 178.0 \pm 2.0$
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D3	$\Phi 50.0 \text{ Min.}$
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D4	$\Phi 13.0 \pm 0.5$
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W1	16.0 ± 2.0
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Quantity: 3000PCS