



Features

- 100 Watts peak pulse power ($t_p = 8/20\mu s$)
- Protects one I/O or power line
- Replacement for MLV(0805)
- Low clamping voltage
- Working voltage: 3.3V
- Low leakage current
- Solid-state silicon-avalanche technology



IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 6A (8/20 μs)

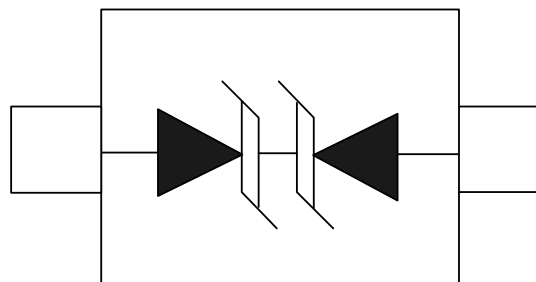
Mechanical Characteristics

- JEDEC SOD-323 package
- Molding compound flammability rating: UL 94V-0
- Marking : Marking Code
- Packaging : Tape and Reel per EIA 481
- RoHS Compliant

Applications

- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Portable Instrumentation
- Digital Cameras
- MP3 players

Schematic & PIN Configuration

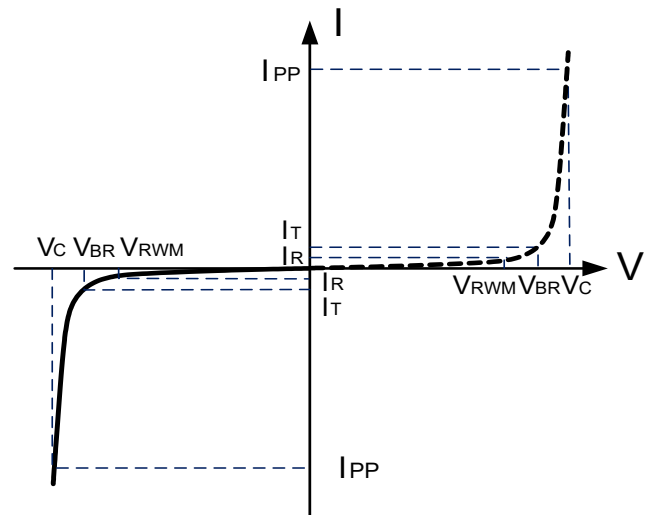


SOD-323 (Top View)

Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	100	Watts
Maximum Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	6	A
Operating Temperature	T_J	-55 to + 125	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}C$

Electrical Parameters (T=25 $^{\circ}C$)

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics

DW03D3BC-B-E						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	4.0			V
Reverse Leakage Current	I_R	$V_{RWM}=3.3V, T=25^{\circ}C$			1	μA
Clamping Voltage	V_C	$I_{PP}=6A, t_p=8/20\mu s$			14	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		13	15	pF



Typical Characteristics

Figure 1: Peak Pulse Power Vs Pulse Time

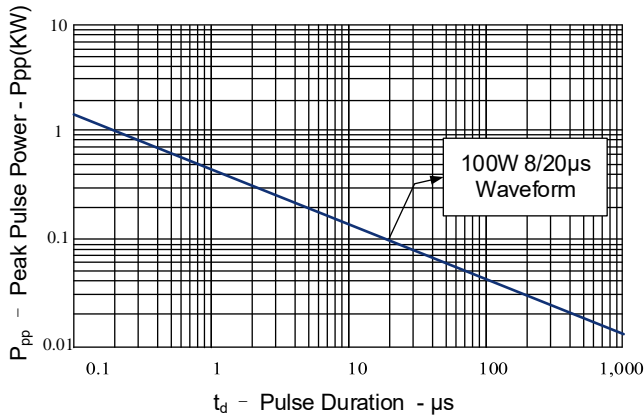


Figure 2: Power Derating Curve

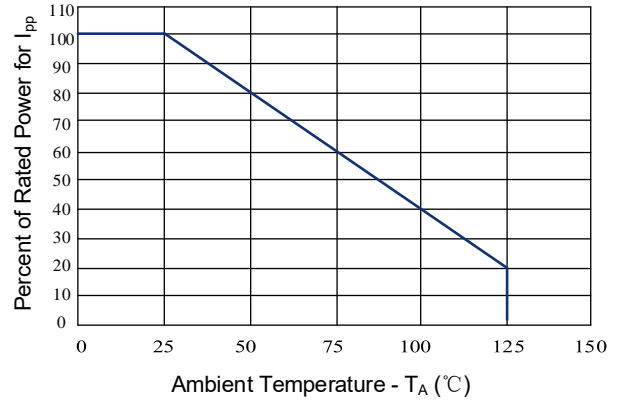


Figure 3: Clamping Voltage vs. Peak Pulse Current

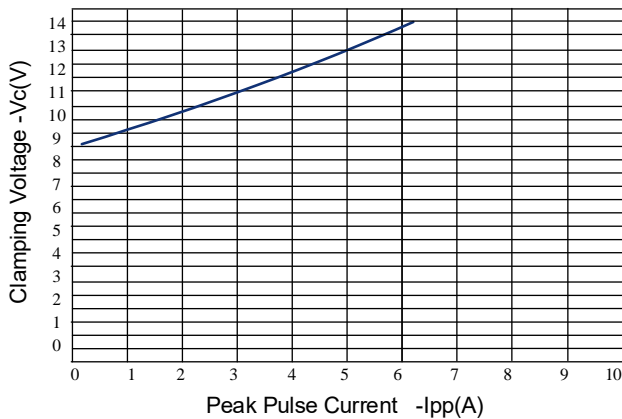


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

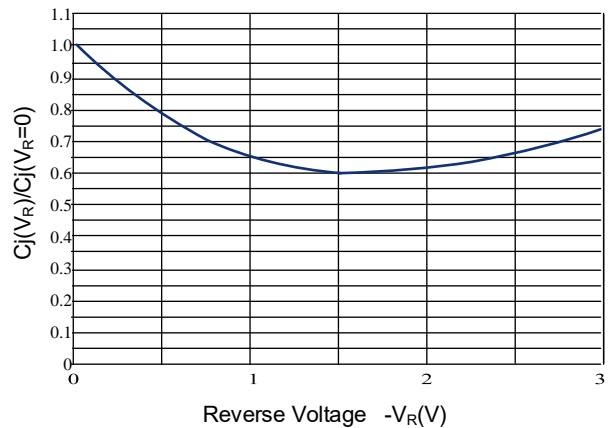


Figure 5: Pulse Waveform

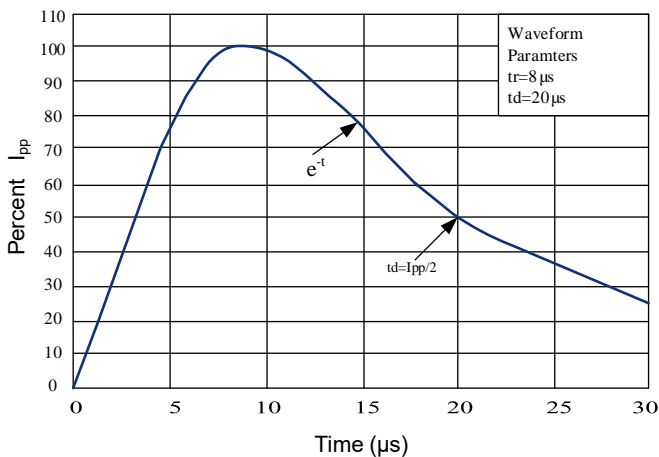
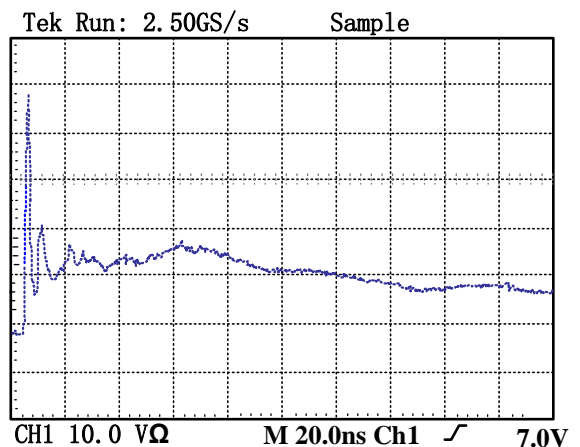
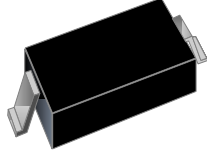
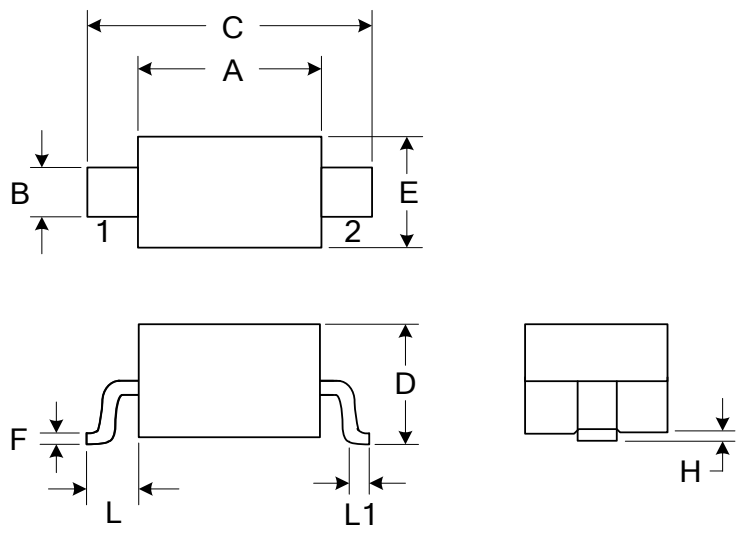
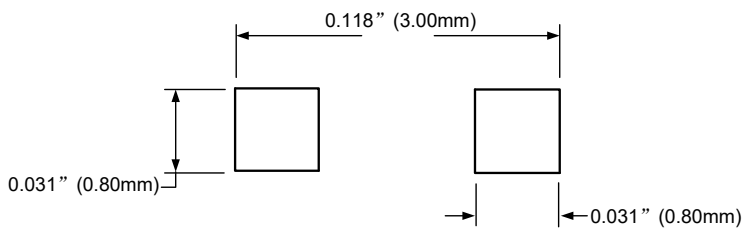


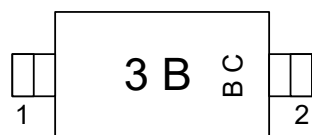
Figure 6: ESD Clamping (8kV Contact per IEC 61000-4-2)



Outline Drawing – SOD323

PACKAGE OUTLINE		 SOD-323			
		DIMENSIONS			
SYMBOL	MILLIMETER		INCHES		
	MIN	MAX	MIN	MAX	
A	1.60	1.80	0.063	0.071	
B	0.25	0.35	0.010	0.014	
C	2.50	2.70	0.098	0.106	
D	0.00	1.00	0.000	0.039	
E	1.20	1.40	0.047	0.055	
F	0.08	0.15	0.003	0.006	
L	0.475 REF		0.019REF		
L1	0.25	0.40	0.010	0.016	
H	0.00	0.10	0.000	0.004	
MOUNTING PAD 		Notes 1. Controlling Dimensions in Millimeters. 2. Dimensions are exclusive of mold flash and metal burrs.			

Marking Codes



Package Information

Qty: 3k/Reel