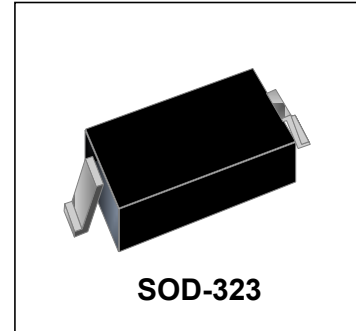




## Features

- 2500 Watts Peak Pulse Power per Line ( $t_p = 8/20\mu s$ )
- Protects one I/O or power line
- Low Clamping Voltage
- Working Voltage: 4.5 V
- Low Leakage Current
- Response Time is Typically  $< 1$  ns



## IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD)  $\pm 30$ kV (air),  $\pm 30$ kV (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 135A (8/20 $\mu s$ )

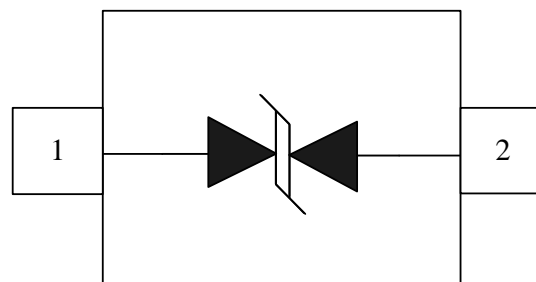
## Mechanical Characteristics

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

## Applications

- Laptop Computers
- Cellular Phones
- Digital Cameras
- Personal Digital Assistants (PDAs)

## Schematic & PIN Configuration

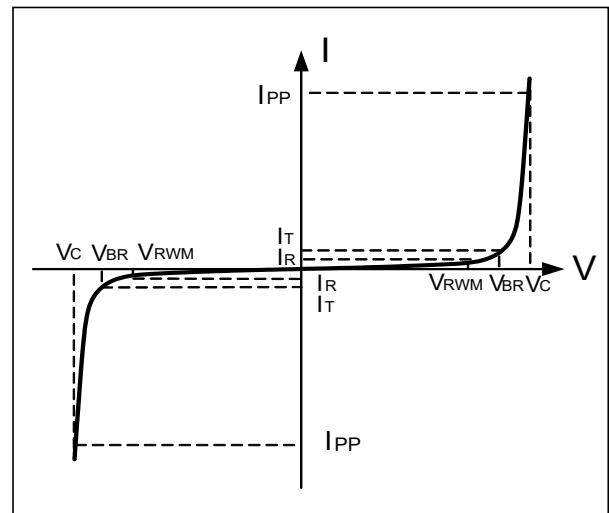


SOD-323 (Top View)

Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p = 8/20\mu s$ )	$P_{PP}$	2500	Watts
Maximum Peak Pulse Current ( $t_p = 8/20\mu s$ )	$I_{PP}$	135	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 @ $I_{PP}$
$V_{RWM}$	Reverse Stand-Off Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current



### Electrical Characteristics

DW4.5D3HP3K-B-S						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	$V_{RWM}$				4.5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	4.6			V
Reverse Leakage Current	$I_R$	$V_{RWM}=4.5V, T=25^{\circ}C$			500	nA
Peak Pulse Current	$I_{PP}$	$t_p=8/20\mu s$			135	A
Clamping Voltage	$V_C$	$I_{PP}=135A, t_p=8/20\mu s$		13	15	V
Junction Capacitance	$C_j$	$V_R = 0V, f = 1MHz$		200	250	pF



## Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

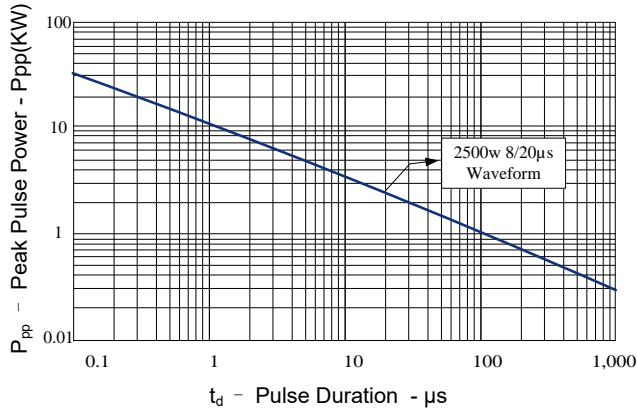


Figure 2: Power Derating Curve

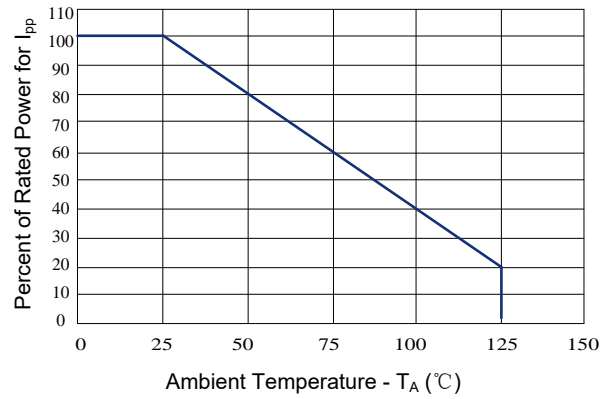


Figure 3: Clamping Voltage vs. Peak Pulse Current

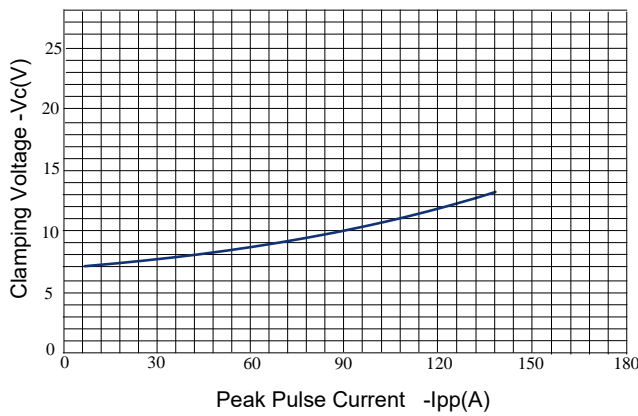


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

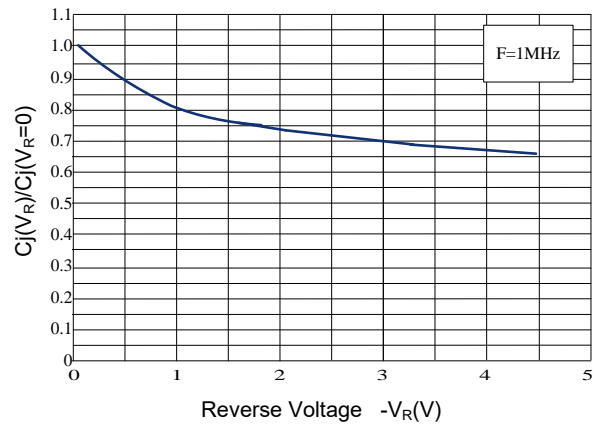
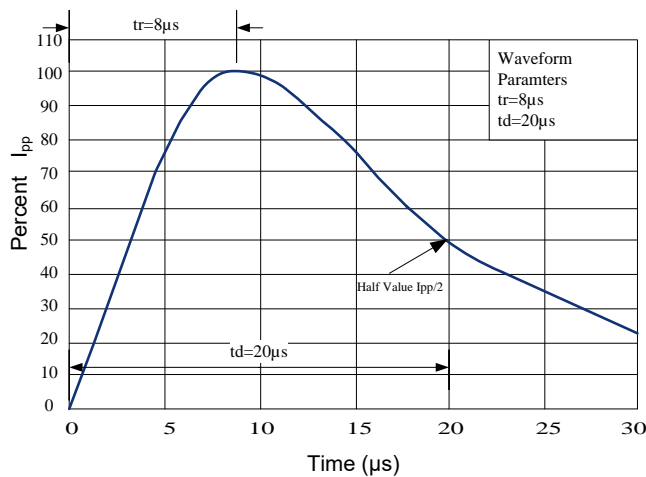
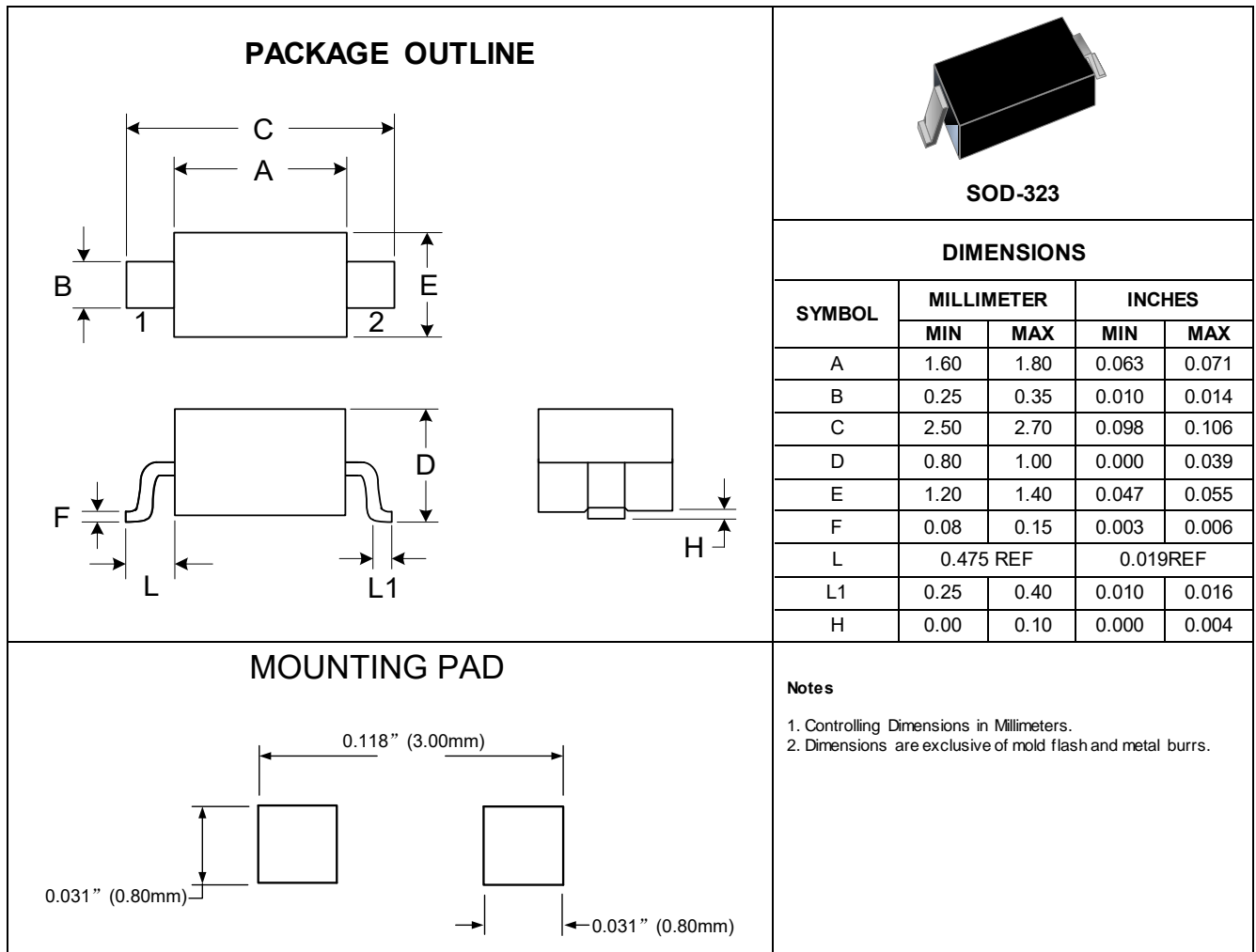


Figure 5: Pulse Waveform



## Outline Drawing – SOD-323



## Marking Codes

Part Number	Marking Code
DW4.5D3HP3K-B-S	45D3B

## Package Information

Qty: 3k/Reel