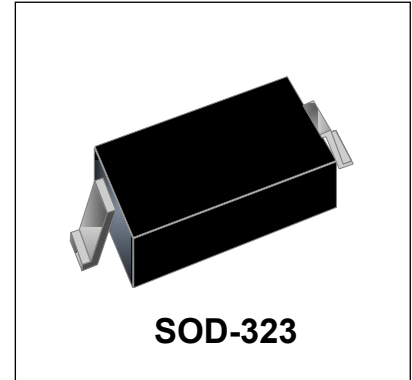




Features

- 540 watts peak pulse power ($t_p = 8/20\mu s$)
- Protects one I/O or power line
- Working Voltages: 36V
- Low Leakage Current
- Response Time is Typically $< 1\text{ ns}$
- AEC-Q101 Qualified



IEC Compatibility (EN61000-4)

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

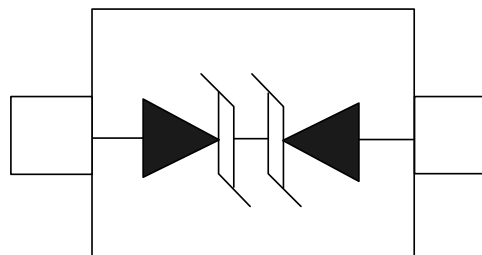
Mechanical Characteristics

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

Applications

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

Schematic & PIN Configuration

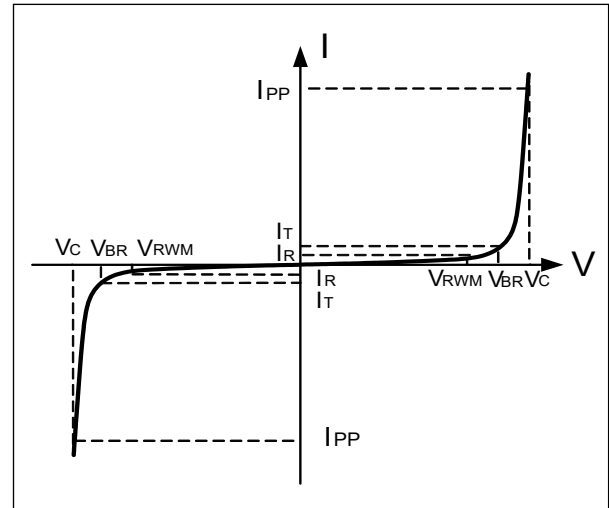


SOD-323 (Top View)

Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	540	W
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{pp}	5	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

DW36D-B-AT-S						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				36	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	40			V
Reverse Leakage Current	I_R	$V_{RWM} = 36V, T = 25^{\circ}C$			0.5	μA
Peak Pulse Current	I_{PP}	$t_p = 8/20\mu s$			5	A
Maximum Clamping Voltage	V_C	$I_{PP} = 5A, t_p = 8/20\mu s$		95	105	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		15	20	pF

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

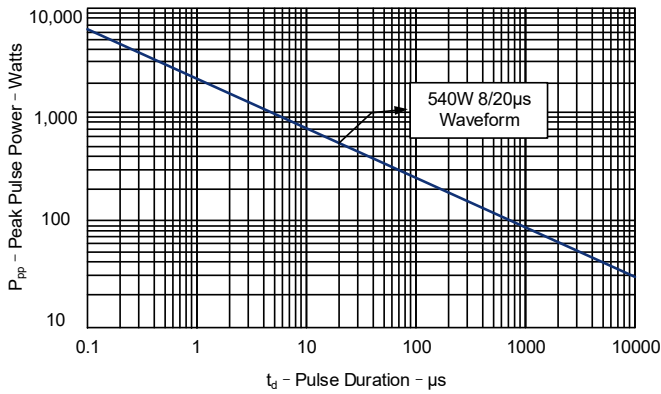


Figure 2: Power Derating Curve

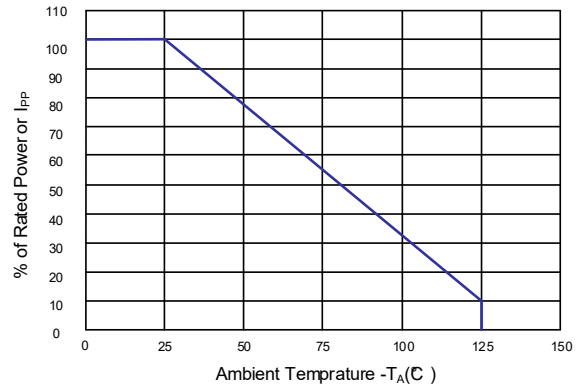


Figure 3: Pulse Waveform

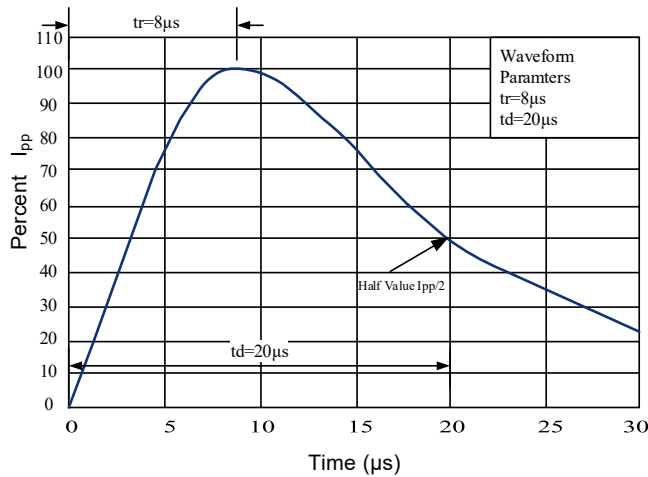


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

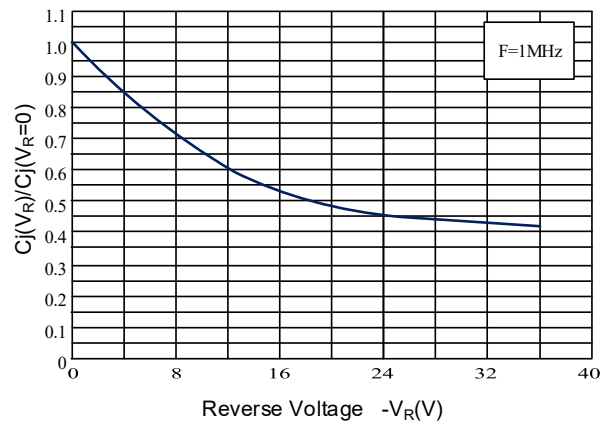
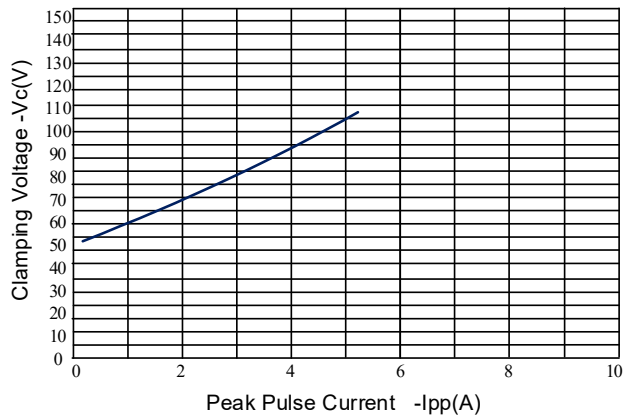


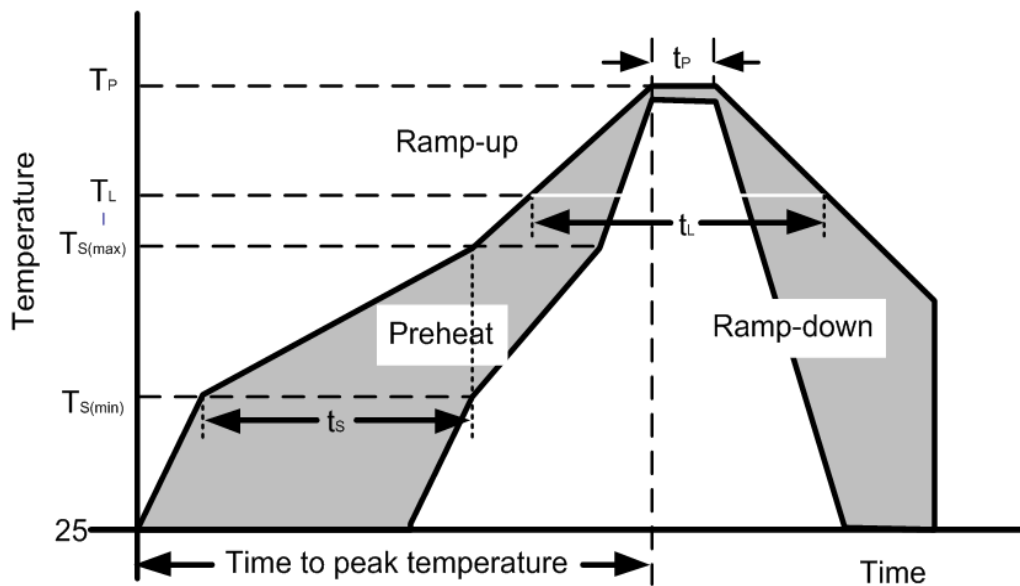
Figure 5: Clamping Voltage vs. Peak Pulse Current



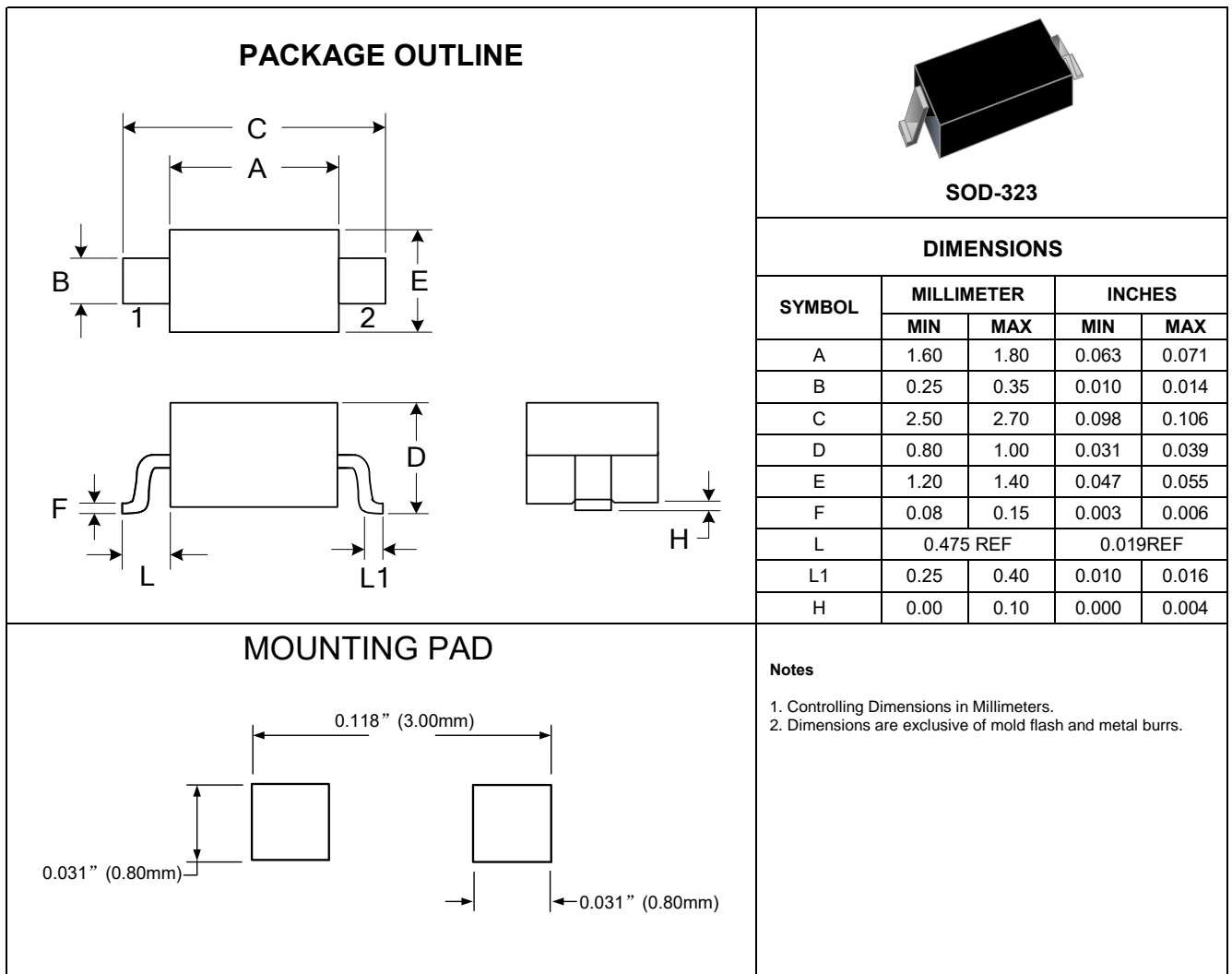


Soldering Parameters


Reflow Condition		Pb – Free assembly
Pre Heat	Temperature Min ($T_{S(min)}$)	150°C
	Temperature Max ($T_{S(max)}$)	200°C
	Time (min to max) (t_s)	60 – 190 secs
Average ramp up rate (Liquidus Temp) (T_L) to peak		5°C/second max
$T_{S(max)}$ to T_L —Ramp-up Rate		5°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_P)		260+0/-5 °C
Time within actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		5°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes Max.
Do not exceed		280°C



Outline Drawing – SOD-323



Marking Codes

Part Number	Marking Code
DW36D-B-AT-S	

Package Information

Qty: 3k/Reel