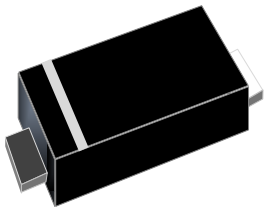
DW4.5D3HP-S

Features

- 1500 Watts Peak Pulse Power per Line (t_p = 8/20μs)
- Replacement for MLV (0805)
- Protects one I/O or power line
- Low Clamping Voltage
- Working Voltage: 4.5 V
- Low Leakage Current
- Response Time is Typically < 1 ns
- AEC-Q101 Qualified



SOD-323F

IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 100A (8/20μs)

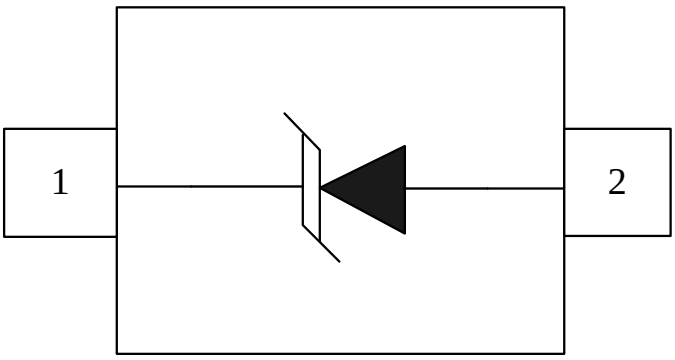
Mechanical Characteristics

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

Applications

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

Schematic & PIN Configuration

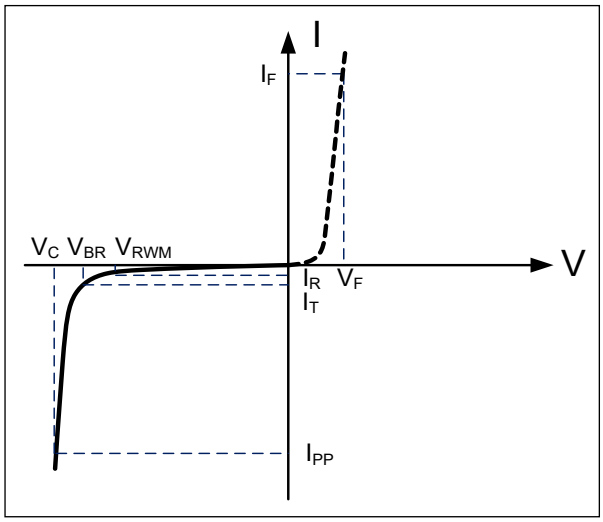


SOD-323F (Top View)

Absolute Maximum Rating			
Rating	**Symbol**	**Value**	**Units**
Peak Pulse Power（t_p =8/20μs）	P_{PP}	1500	Watts
Maximum Peak Pulse Current (t_p = 8/20μs)	I_{PP}	100	A
Operating Temperature	T_J	-55 to + 125	℃
Storage Temperature	T_{STG}	-55 to +150	℃

Electrical Parameters (T=25℃)

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

DW4.5D3HP-S						
Parameter	**Symbol**	**Conditions**	**Minimum**	**Typical**	**Maximum**	**Units**
Forward Voltage	V_F	I_F=1mA		0.7		V
Reverse Stand-Off Voltage	V_{RWM}				4.5	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	5		7	V
Reverse Leakage Current	I_R	V_{RWM}=4.5V,T=25℃			0.5	μA
Clamping Voltage	V_C	I_{PP}=100A,t_p=8/20μs			15	V
Junction Capacitance	C_j	V_R=0V, f=1MHz		700		pF

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

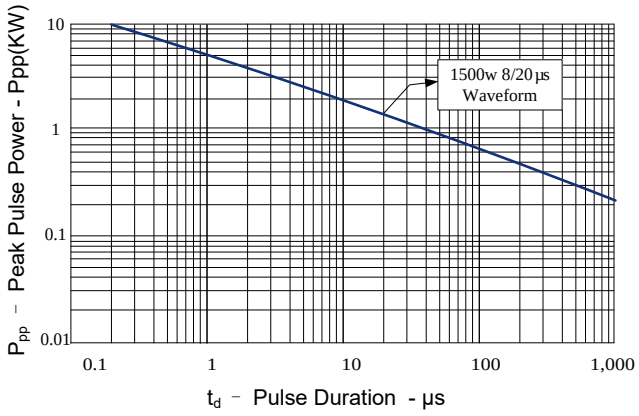


Figure 2: Power Derating Curve

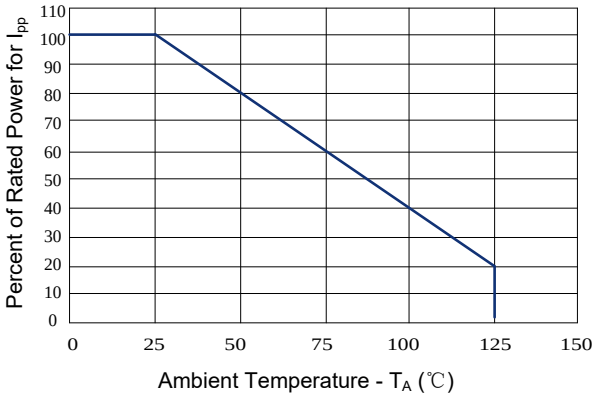


Figure 3: Clamping Voltage vs. Peak Pulse Current

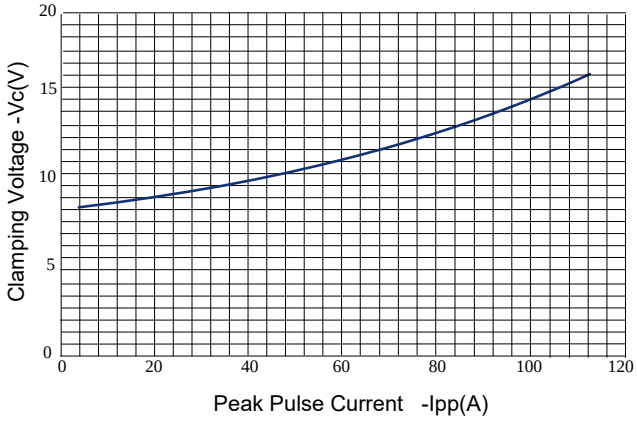


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

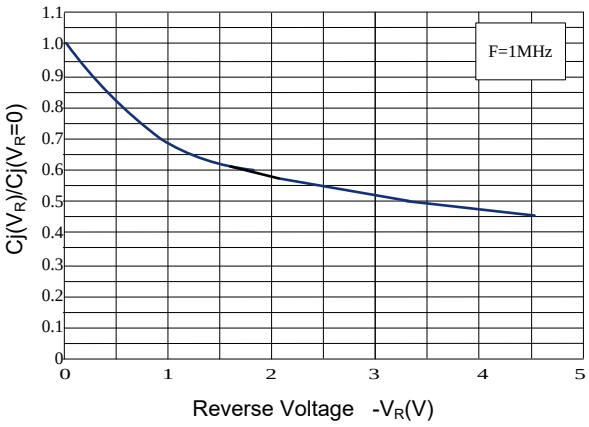
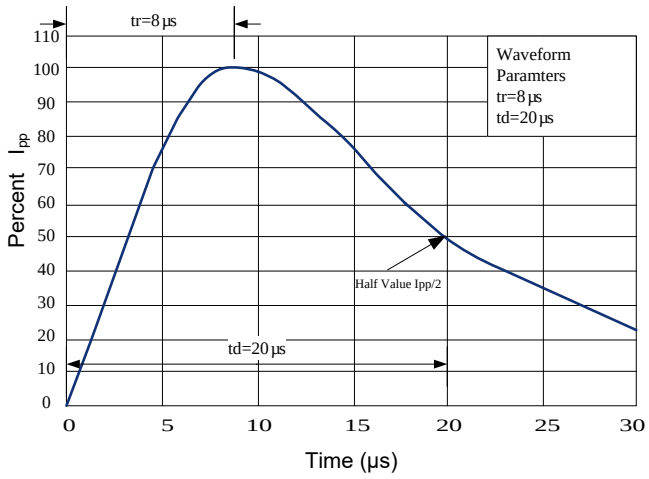
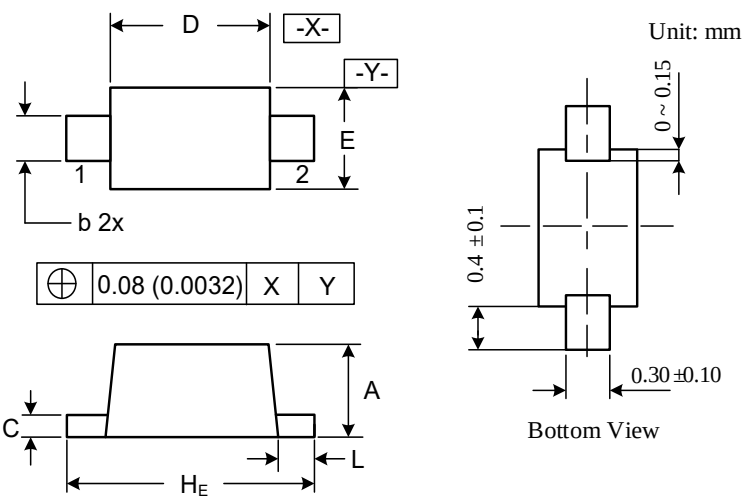
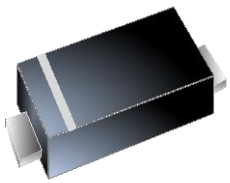


Figure 5: 8/20μs Pulse Waveform



Outline Drawing – SOD-323F



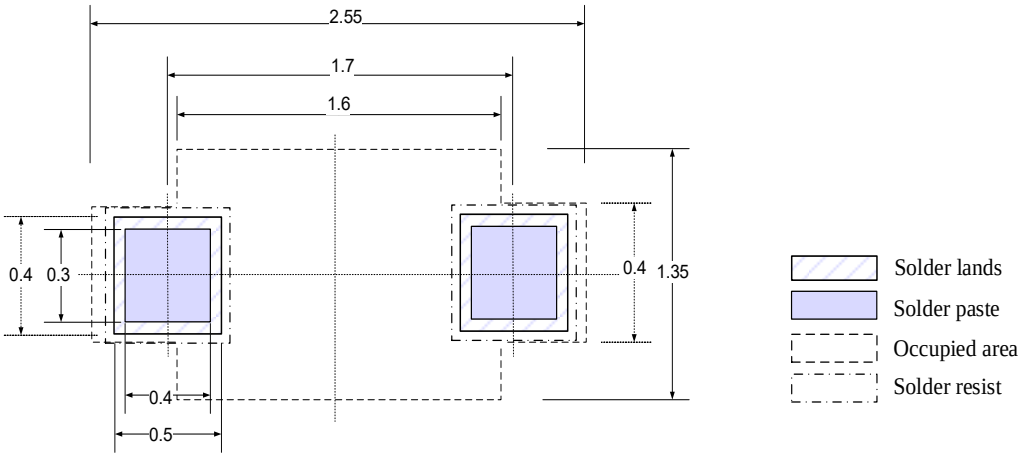


SOD-323F

SYMBOL	MILLIMETER		
	MIN	TYP	MAX
A	0.6	0.65	0.7
b	0.25	0.30	0.35
C	0.08	0.13	0.18
D	1.6	1.7	1.8
E	1.15	1.25	1.35
H_E	2.38	2.48	2.58
L	0.29	0.39	0.49

Notes

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL



Unit: mm

Marking Codes

Package Information

Qty：3k/Reel