



### Standard Capacitance TVS Diode (For ESD Protection)

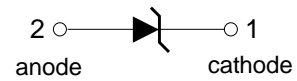
#### Features

- Unidirection:450 Watts peak pulse power per line( $t_p=8/20\mu s$ )
- Replacement for MLV (0805)
- Protects one power or I/O port
- Low clamping voltage
- Applied to the type 3V and 36V
- 61000-4-2 (ESD): Air 30kV, Contact 30kV



RoHS  
COMPLIANT

SOD-323



#### Applications

- Laptop computers
- Cellular phones
- Digital cameras
- Personal digital assistant (PDA)

#### Mechanical Characteristics

- Molded JEDEC SOD-323
- Weight 6 milligrams (Approximate)

#### Maximum Ratings ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

Items	Symbol	Value	Unit
Peak Pulse Power( $t_p=8/20\mu s$ ) at $T_L=25\text{ }^\circ\text{C}$	PPP	450	Watts
Operating temperature range	$T_J$	$-55\text{ }^\circ\text{C}$ to $125\text{ }^\circ\text{C}$	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	$-55\text{ }^\circ\text{C}$ to $150\text{ }^\circ\text{C}$	$^\circ\text{C}$

**Standard Capacitance TVS Diode  
(For ESD Protection)****Electrical Characteristics**

Part Number	Device Marking	Rated Stand-off Voltage $V_{WM}$ Volts	Minimum Breakdown Voltage @ 1mA V (BR) Volts	Typical Clamping Voltage (See Fig.2) @ $I_{PP}=1A$ $V_c$ Volts	Maximum Clamping Voltage (See Fig.2) @ 8/20 $\mu$ s $V_c$ @ $I_{PP}$	Maximum Leakage Current @ $V_{WM}$ $I_D$ $\mu$ A	Typical Capacitance @ 0V, 1MHz $C_J$ pF
SD03	3A	3.3	4.00	6.5	9.7V @ 46.7A	20.0	400
SD05	5A	5.0	6.20	7.3	10.8V @ 41.7A	15.0	350
SD08	8A	8.0	8.89	10.5	15.7V @ 28.7A	10.0	250
SD08.5	8.5A	8.5	9.44	11.2	17.1V @ 26.4A	5.0	220
SD09	9A	9.0	10.0	11.8	18.2V @ 24.8A	2.0	210
SD10	10A	10	11.1	13.1	19.4V @ 23.3A	1.0	190
SD11	11A	11	12.2	14.3	21.1V @ 21.4A	0.1	170
SD12	12A	12	13.3	15.6	22.9V @ 19.7A	0.1	160
SD13	13A	13	14.4	16.8	24.8V @ 18.2A	0.1	150
SD14	14A	14	15.6	18.2	25.8V @ 17.5A	0.1	140
SD15	15A	15	16.7	19.5	26.8V @ 16.8A	0.1	130
SD16	16A	16	17.8	20.7	28.0V @ 16.1A	0.1	120
SD17	17A	17	18.9	22.1	29.2V @ 15.4A	0.1	100
SD18	18A	18	20.0	23.4	32.4V @ 13.9A	0.1	95
SD20	20A	20	22.2	25.8	33.5V @ 13.5A	0.1	90
SD22	22A	22	24.4	28.3	36.9V @ 12.2A	0.1	85
SD24	24A	24	26.7	30.9	40.2V @ 11.2A	0.1	80
SD26	26A	26	28.9	33.6	43.5V @ 10.4A	0.1	75
SD28	28A	28	31.1	36.1	46.8V @ 9.7A	0.1	70
SD30	30A	30	33.3	38.6	51.0V @ 8.9A	0.1	65
SD33	33A	33	36.7	42.4	57.0V @ 7.9A	0.1	60
SD36	36A	36	40.0	46.7	63.6V @ 7.1A	0.1	55



### Characteristics Curves

Fig.1 Power Derating Curve

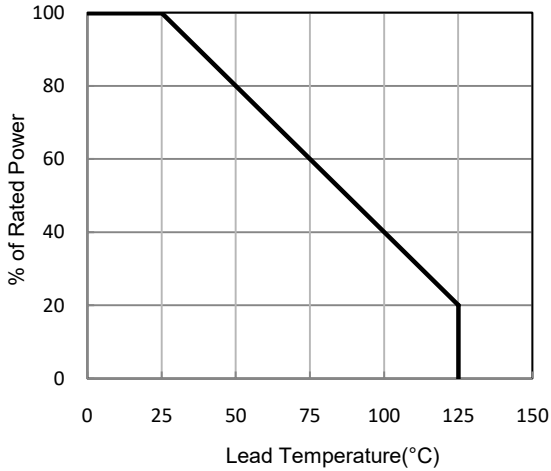


Fig 2. Peak Pulse Power vs. Pulse Time

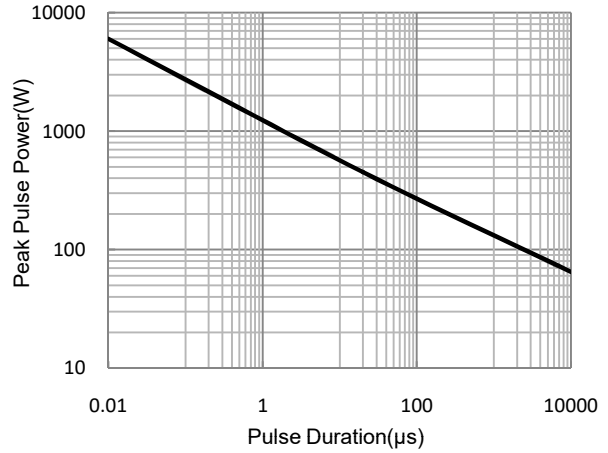
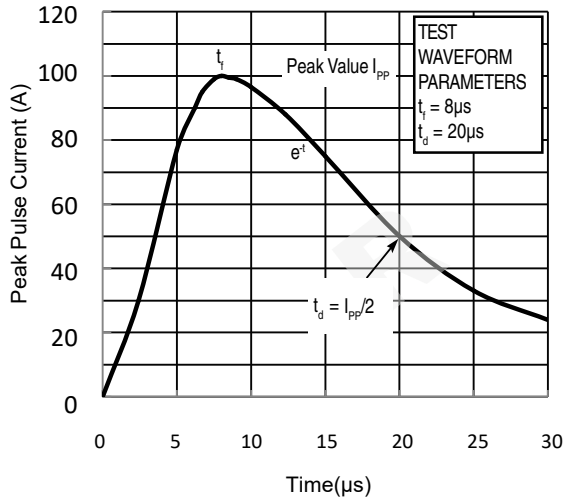


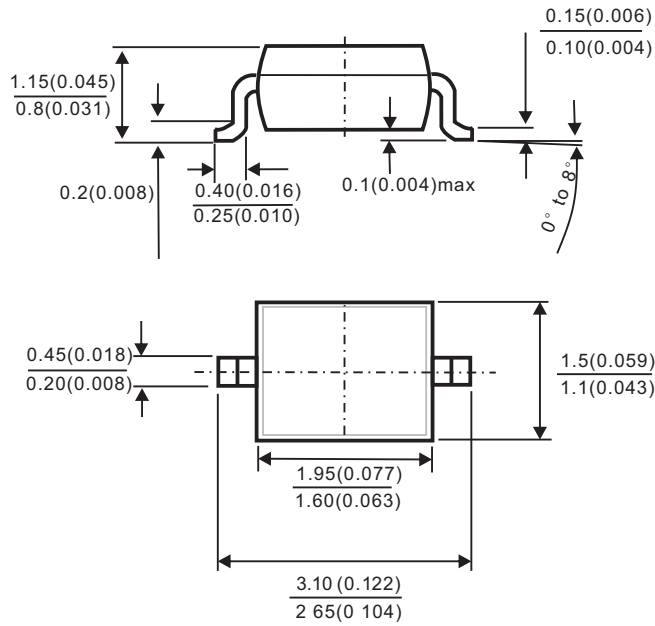
Fig3. Pulse Wave Form



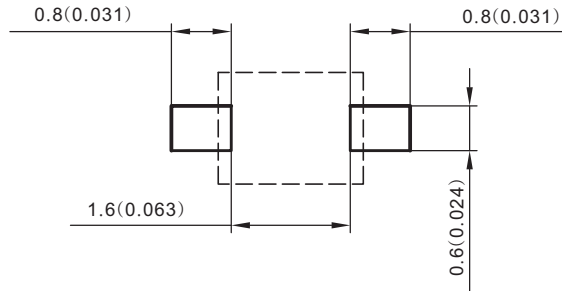


#### Package Outline

#### SOD-323



Footprint recommendation:



Package dimensions in millimeters (inches)

#### Ordering Information

Outline	Reel (PCS)	Per Carton (PCS)	Reel Diameters (mm)
Taping	3,000	240,000	178/7"

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