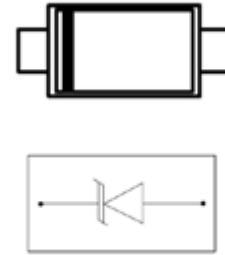


## Feature

- 500W peak pulse power per line ( $t_p = 8/20\mu s$ )
- SOD-323 package
- Replacement for MLV(0805)
- Unidirectional configurations
- Protects one power or I/O port
- ESD protection > 40 kV
- Low clamping voltage
- RoHS compliant
- Transient protection for data lines to IEC 61000-4-2(ESD)  $\pm 15KV$ (air),  $\pm 8KV$ (contact); IEC 61000-4-4 (EFT) 40A (5/50ns)  
IEC 61000-4-5(surge): 24A, 8/20 $\mu s$ -Level 2(line-ground) & Level 3(line-line)



## Applications

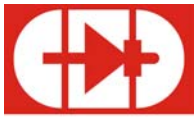
- Laptop computers
- Cellular phones
- Digital cameras
- PDAs

## Electrical characteristics per line@25°C(unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse stand-off voltage	$V_{RWM}$				5	V
Reverse Breakdown voltage	$V_{BR}$	$I_t = 1mA$	6			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5V$ $T=25^\circ C$			1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 1A$ $t_p = 8/20\mu s$			9.8	V
Clamping Voltage	$V_C$	$I_{PP}=42A$ $t_p = 8/20\mu s$			14.5	V
Junction Capacitance	$C_j$	$V_R=0V$ $f = 1MHz$		300		pF

## Absolute maximum rating @25°C

Rating	Symbol	Value	Units
Unidirectional Peak Pulse Power ( $t_p=8/20\mu s$ )	$P_{pp}$	500	W
Operating Temperature	$T_J$	-55 to +150	$^\circ C$
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ C$



Typical Characteristics

FIGURE 1  
PEAK PULSE POWER VS PULSE TIME

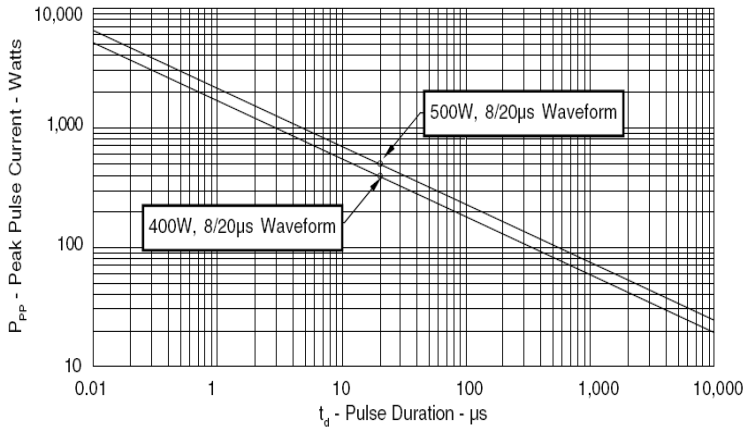


FIGURE 2  
PULSE WAVEFORM

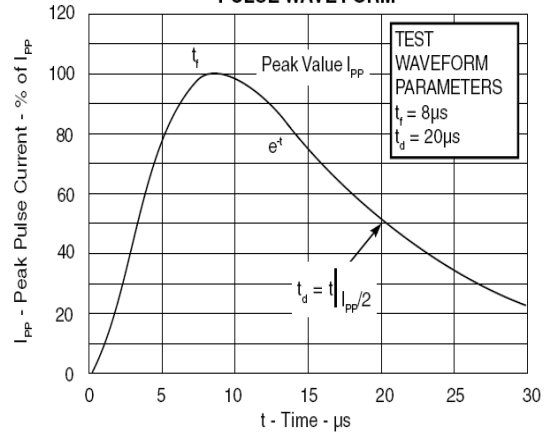


FIGURE 3  
POWER DERATING CURVE

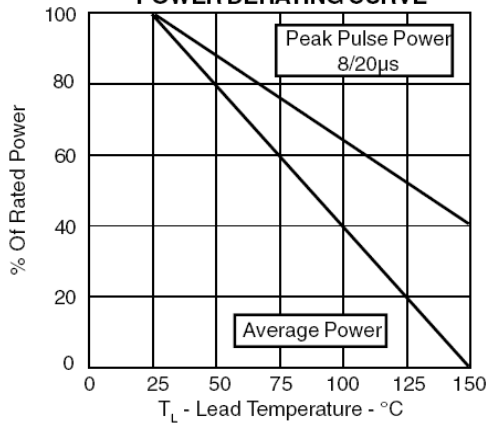
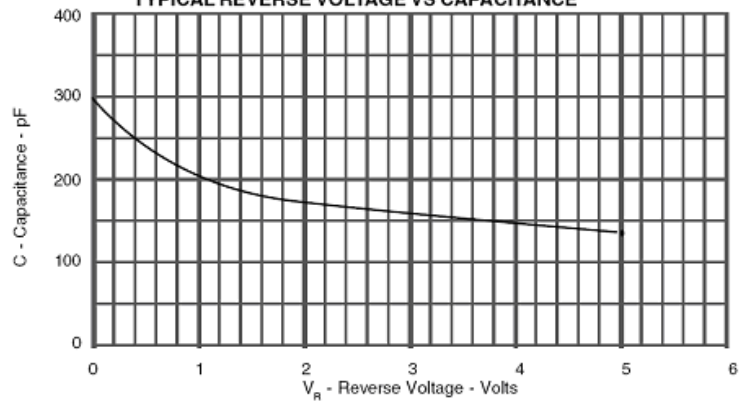
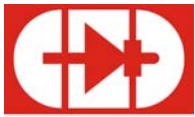


FIGURE 4

TYPICAL REVERSE VOLTAGE VS CAPACITANCE





**Product dimension and pad size**

2-Lead SOD-323 Plastic  
Surface Mounted Package

**Marking:**

Pb Free Mark  
Pb-Free: "•"

**Note:** Pb-free product can distinguish by the green label or the extra description on the right side of the label.

**Pin Style:** 1.Cathode 2.Anode

**Material:**

- Sn/3.0Ag/0.5Cu or Pure-Tin (Pb-free)
- Mold Compound: Epoxy resin family, flammability solid burning class: UL94V-0

DIM	Min.	Max.
A	1.60	1.80
B	1.15	1.45
C	0.80	1.00
D	0.25	0.40
D1	-	*0.4
D2	-	*0.5
E	0.15	-
e	-	*2.20
H	0.00	0.10
J	0.089	0.18
K	2.30	2.70

\*: Typical, Unit: mm

**Carrier size**

DIM	Min.	Max.
Ao	1.42	1.62
Bo	2.80	3.00
Ko	1.25	1.45
Po	3.90	4.10
P1	3.90	4.10
P2	1.95	2.05
T	0.24	0.27
E	1.65	1.85
F	3.45	3.55
Do	1.40	1.60
D1	0.75	1.25
W	7.90	8.30
G	-	*2.08
H	-	*1.07
I	-	*0.84
a1	-	5°
a2	-	8°

\*: Typical, Unit: mm

**Revision History**

Revision	Date	Changes
1.0	2008-7-3	-