GOOD-ARK

SES Series

ESD Protector **SES5VD323-2U** ROHS

Feature

- 500W peak pulse power per line (t_P = 8/20μs)
- 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) ±15KV(air), ±8KV(contact); IEC 61000-4-4 (EFT) 40A (5/50ns)
  IEC 61000-4-5(surge): 24A, 8/20μs-Level 2(line-groud) & Level 3(line-line)

Applications

- Laptop computers
- Cellular phones
- Digital cameras
- PDAs

Electrical characteristics per line@25℃(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°C			1	μA
Clamping Voltage	V_C	I_{PP} = 1A t_P = 8/20μs			9.8	V
Clamping Voltage	V_C	I_{PP}=42A t_P = 8/20μs			14.5	V
Junction Capacitance	C_j	V_R=0V f = 1MHz		300		pF

Absolute maximum rating @25℃

Rating	Symbol	Value	Units
Unidirectional Peak Pulse Power (t_p=8/20μS)	P_{pp}	500	W
Operating Temperature	T_J	-55 to +150	℃
Storage Temperature	T_{STG}	-55 to +150	℃

Typical Characteristics

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

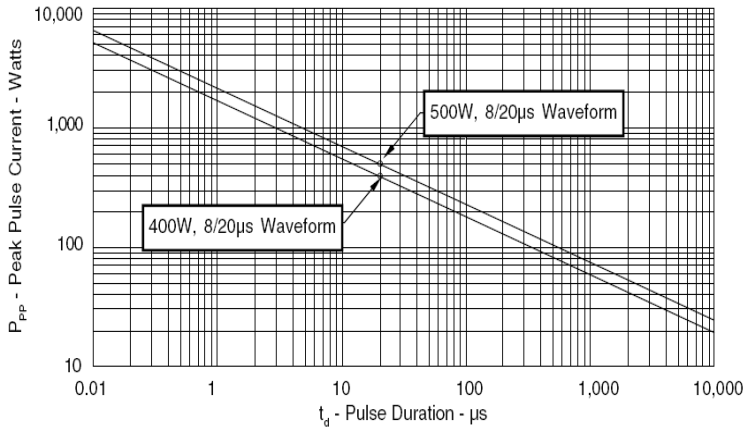


FIGURE 2
PULSE WAVE FORM

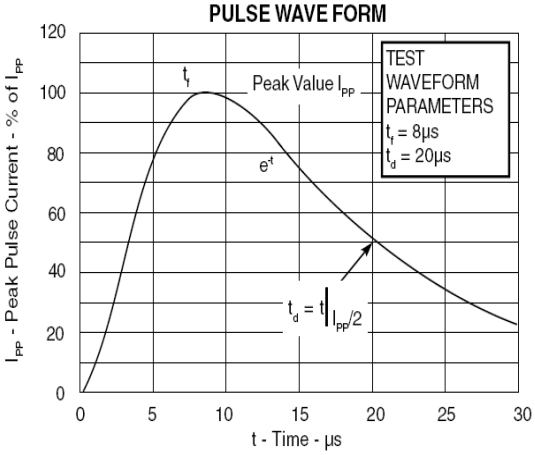


FIGURE 3
POWER DERATING CURVE

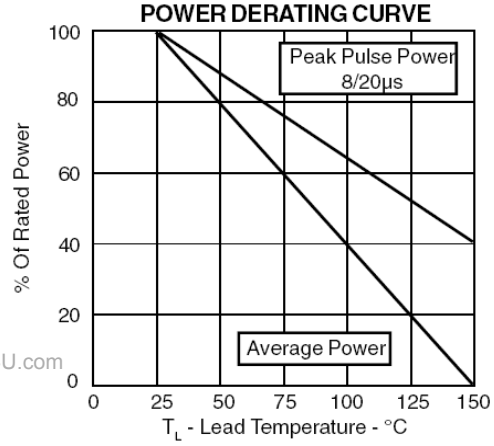
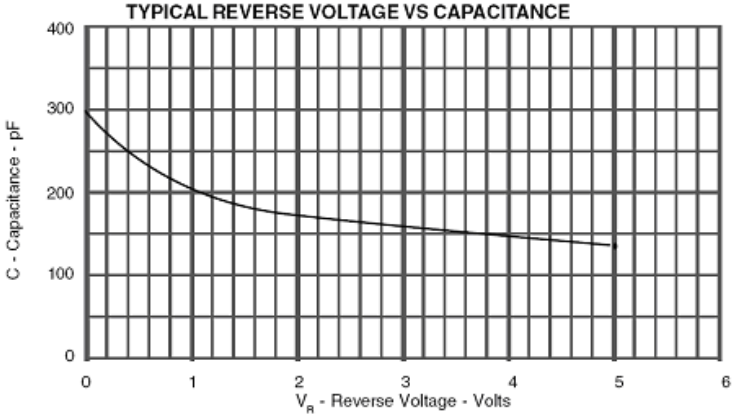
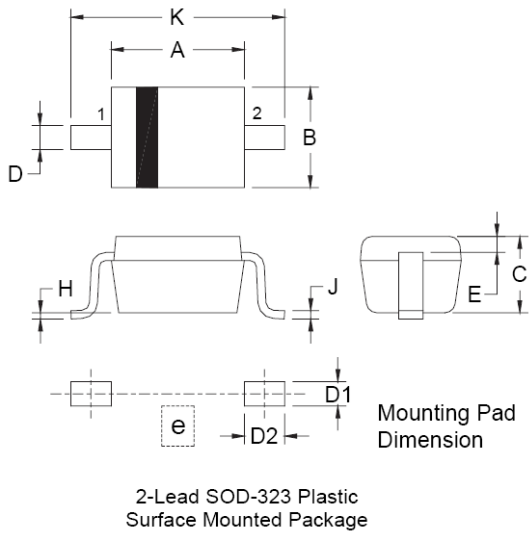


FIGURE4
TYPICAL REVERSE VOLTAGE VS CAPACITANCE



Product dimension and pad size



Mounting Pad Dimension

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.

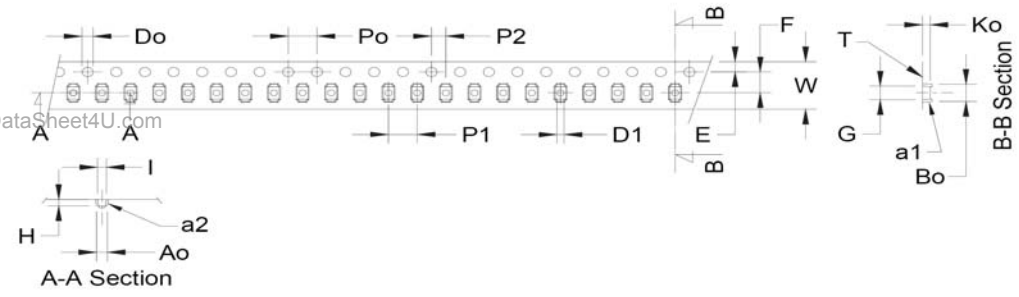
Pin Style: 1.Cathode 2.Anode

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	-