

**APPROVAL DRAWING**

Surge Components product name
SES5VD323-2B TR (RoHS compliant)

**CONTENTS**

1. FEATURE
2. APPLICATION
3. ELECTRICAL CHARACTERISTICS
4. ABSOLUTE MAXIMUM RATING
5. TYPICAL CHARACTERISTICS
6. PRODUCT DIMENSION
7. PACKING INFORMATION

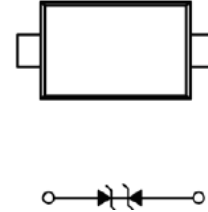
Customer Acknowledgement
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Surge Components, Inc.

Manufacturer Surge Components, Inc.
2009-05-06

## 1. FEATURE

- 500 Watts peak pulse power per line (tp=8/20us)
- SOD-323 package
- Replacement for MLV (0805)
- Unidirectional configurations
- Protects one power or I/O port
- ESD protection > 35 kV
- Low clamping voltage
- RoHS compliant
- Transient protection for data lines to IEC 61000-4-2(ESD) ± 15KV (air),
- ± 8KV(contact); IEC 6100-4-4(EFT) 40A (5/50ns)



## 2. APPLICATION

- Laptop computers
- Cellular phones
- Digital cameras
- PDAs

## 3. 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	$V_{BR}$	$I_t = 1mA$	6.0			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	$V_C$	$I_{PP} = 42A$ $t_p=8/20\mu s$			13.5	V
Junction Capacitance	$C_j$	$V_R = 0V$ , $f = 1MHz$			35	pF

## 4. 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	°C
Storage Temperature	$T_{STG}$	-55 to +150	°C

## 5.TYPICAL CHARACTERISTICS

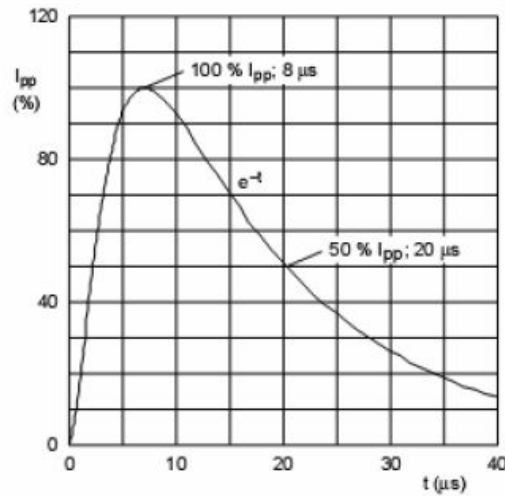


Figure 1. 8/20us pulse waveform

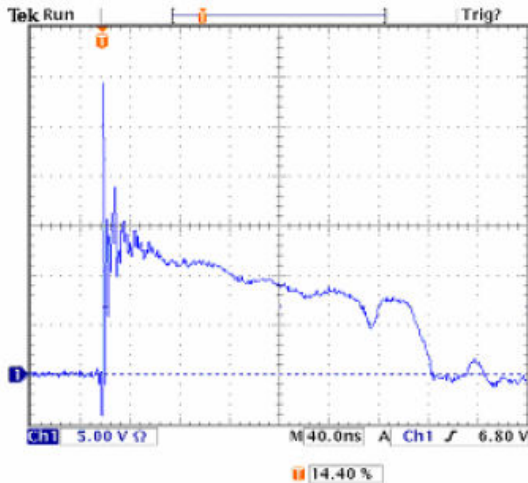


Figure 2 . Positive 8 kV Contact per IEC 6100-4-2

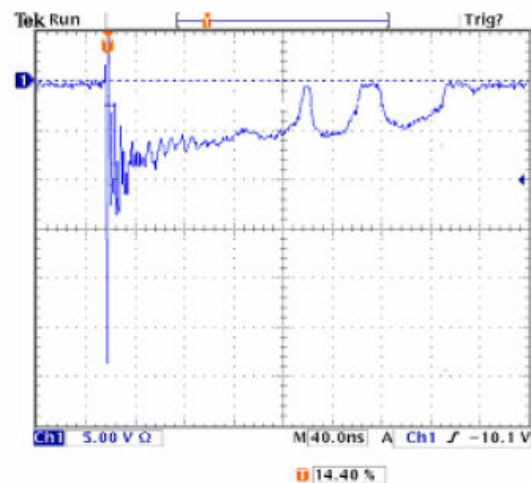
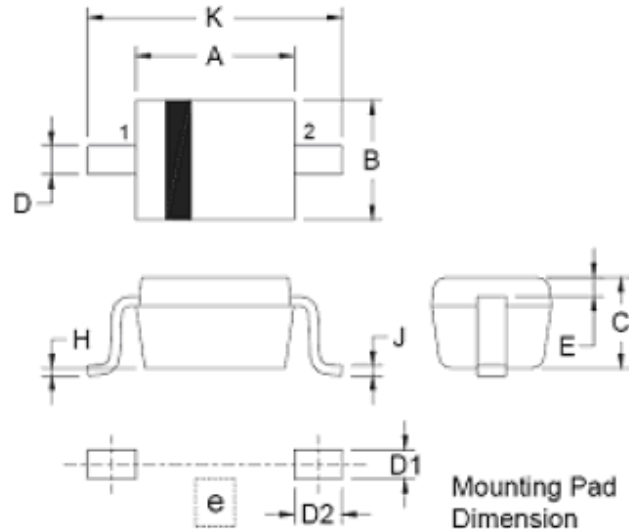


Figure 3. Negative 8 kV Contact per IEC 6100-4-2

## 6. PRODUCT DIMENSION

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



2-Lead SOD-323 Plastic Surface Mounted Package

## 7. Packing information

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

