

APPROVAL DRAWING

Surge Components product name
SES7VD523-2U TR (RoHS compliant)

CONTENTS

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

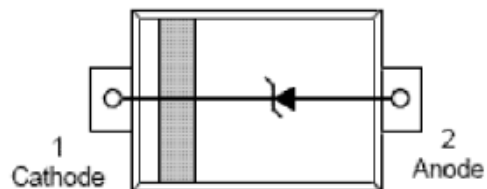
Surge Components Inc.

Customer Acknowledgement

Manufacturer Surge Components, Inc.
2009-05-06

1. FEATURE

- 200 Watts peak pulse power per line ($t_p=8/20\mu s$)
- SOD-523 package
- Replacement for MLV (0603)
- Unidirectional configurations
- Response Time is Typically < 1 ns
- ESD protection > 16 kV
- Low clamping voltage
- RoHS compliant
- Transient protection for data lines to IEC 61000-4-2(ESD) $\pm 15KV$ (air),
- $\pm 8KV$ (contact); IEC 6100-4-4(EFT) 40A (5/50ns)



2. APPLICATION

- Cellular phones
- Portable devices
- Digital cameras
- Power suppliers

3. ELECTRICAL CHARACTERISTICS PER LINE@25°C (UNLESS OTHERWISE SPECIFIED)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse stand-off voltage	V_{RWM}				7.0	V
Reverse Breakdown voltage	V_{BR}	$I_t = 1mA$	7.5			V
Reverse Leakage Current	I_R	$V_{RWM} = 5V$ $T=25^\circ C$			0.01	μA
Clamping Voltage	V_C	$I_{PP} = 5A$ $t_p = 8/20\mu s$			13.5	V
Clamping Voltage	V_C	$I_{PP} = 8.8A$ $t_p = 8/20\mu s$			22.7	V
Junction Capacitance	C_j	$V_R = 0V$, $f = 1MHz$		65		pF

4. ABSOLUTE MAXIMUM RATING @25°C

Rating	Symbol	Value	Units
Unidirectional Peak Pulse Power($t_p=8/20\mu s$)	P_{PP}	200	W
Operating Temperature	T_j	-55 to +150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

5. TYPICAL CHARACTERISTICS

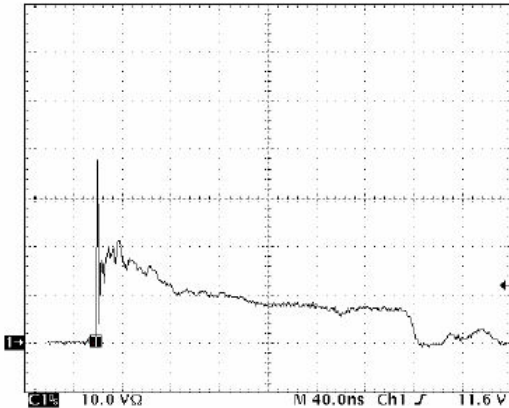


Figure 1. ESD Clamping Voltage Screenshot
Positive 8 kV contact per IEC 61000-4-2

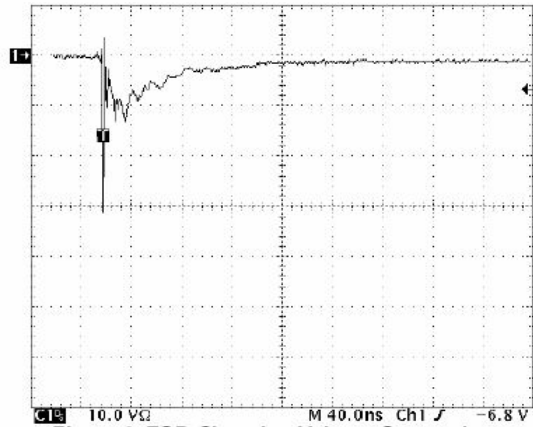


Figure 2. ESD Clamping Voltage Screenshot
Negative 8 kV contact per IEC 61000-4-2

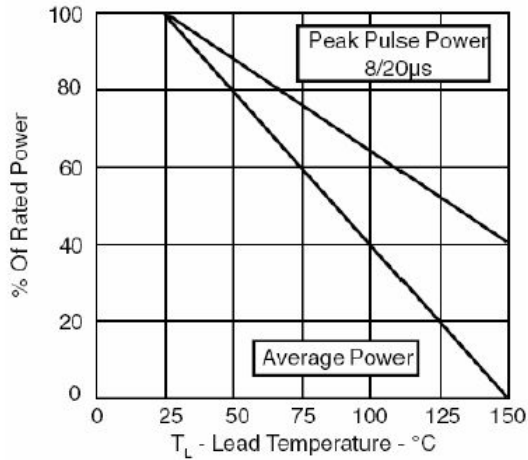


Figure 3. Power Derating Curve

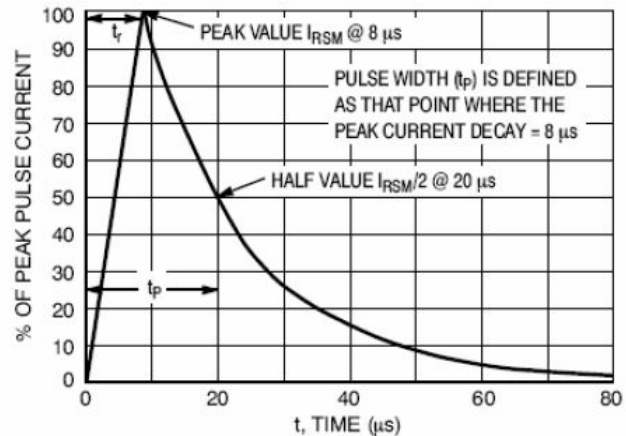


Figure 4. 8 X 20 µs Pulse Waveform

6.PRODUCT DIMENSION

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.10	1.20	1.30	0.043	0.047	0.051
B	0.70	0.80	0.90	0.028	0.032	0.035
C	0.50	0.60	0.70	0.050	0.024	0.028
D	0.25	0.30	0.35	0.010	0.012	0.014
J	0.07	0.14	0.20	0.0028	0.0055	0.0079
K	0.15	0.20	0.25	0.006	0.008	0.010
S	1.50	1.60	1.70	0.059	0.063	0.067

