Surge Components, Inc.

APPROVAL DRAWING

Surge Components product name
SES5VD523-2U TR (RoHS compliant)

CONTENTS

Surge Components, Inc.

Customer Acknowledgement	Manufacturer Surge Components, Inc. 2009-05-06

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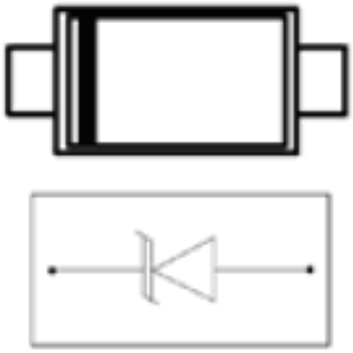
1.. FEATURE

- 200 Watts peak pulse power per line (tp=8/20us)
- SOD-523 package
- Replacement for MLV （0603）
- Unidirectional configurations
- Response Time is Typically<1ns
- ESD protection>40kV
- 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)



2. APPLICATION

- **Portable devices**
- **Cellular phones**
- **Digital cameras**
- **Power supplies**

3. 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	6.2			V
Reverse Leakage Current	I_R	V_{RWM} =5V T=25℃			0.05	μA
Clamping Voltage	V_C	I_{PP} =1A t_p=8/20μs			8.0	V
Clamping Voltage	V_C	I_{PP} =5A t_p=8/20μs			10.0	
Clamping Voltage	V_C	I_{PP} =15A t_p=8/20μs			15.0	V
Junction Capacitance	C_j	V_R =0V, f =1MHZ		100		pF

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4. ABSOLUTE MAXIMUM RATING @25℃

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

5.TYPICAL CHARACTERISTICS

FIGURE1

ESD PULSE WAVEFORM ACCORDING TO IEC 61000-4-2

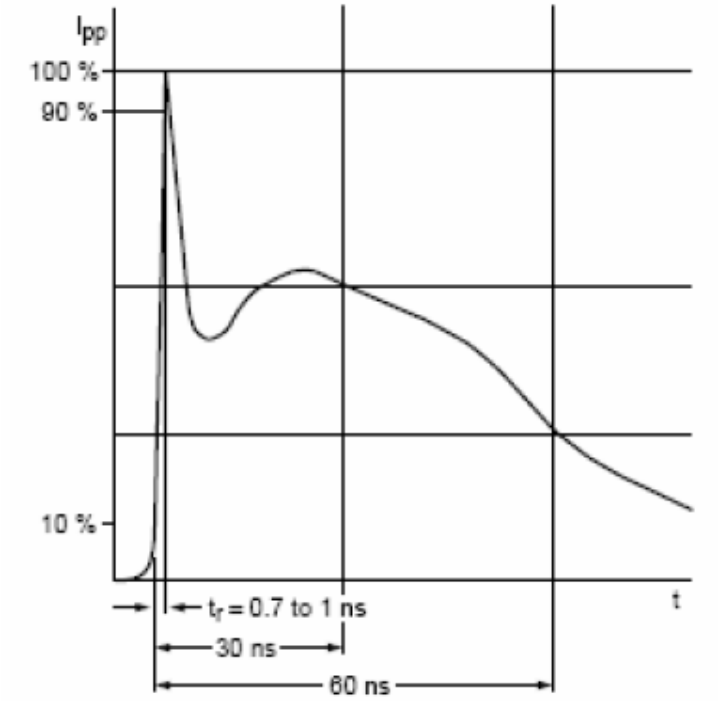

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FIGURE 2
PULSE WAVE FORM

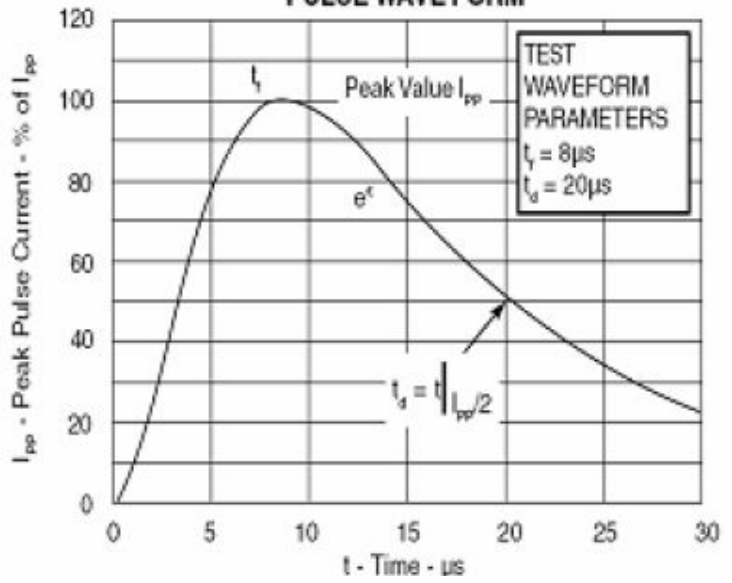
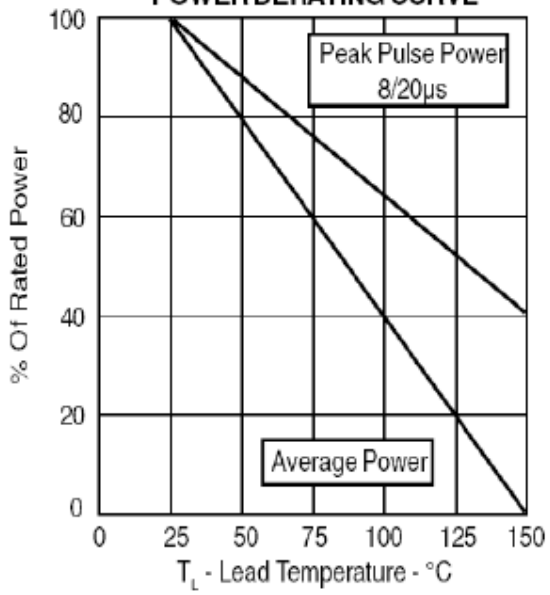


FIGURE 3
POWER DERATING CURVE



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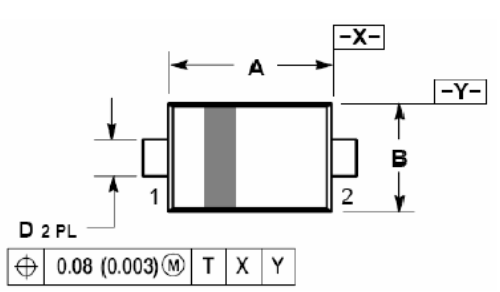
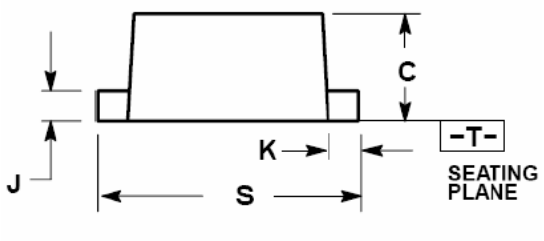
6. PRODUCT DIMENSION





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	0.020	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

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