STANDARD CAPACITANCE TVS ARRAY

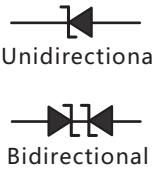
APPLICATIONS

- Laptop Computers
- Cellular Phones
- Digital Cameras
- Personal Digital Assistant (PDA)

IEC COMPATIBILITY (EN61000-4)

- 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- 61000-4-4 (EFT): 40A - 5/50ns
- 61000-4-5 (Surge): 24A, 8/20μs - Level 2 (Line-Gnd)& Level 3(Line-Line)

PINNING



MECHANICAL DATA
- Case: SOD-323
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.48mg / 0.00019oz

FEATURES

- Unidirectional: 500 Watts Peak Pulse Power per Line (tp = 8/20μs)
- BidirectionalL 400 Watts Peak Pulse Power per Line (tp = 8/20μs)
- Unidirectional & Bidirectional Configurations
- Replacement for MLV (0805)
- Protects One Power or I/O Port
- ESD Protection > 40 kilovolts
- Low Clamping Voltage
- Available in Multiple Voltage Types Ranging from 3V to 36V
- RoHS Compliant

MECHANICAL CHARACTERISTICS

- Molded JEDEC SOD-323 Package
- Solder Reflow Temperature:Pure-Tin - Sn, 100: 260-270°C
- Consult Factory for Leaded Device Availability
- Device Marking: Marking Code & Polarity Band (Unidirectional Only)

DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	Symbol	Value	Unit
Unidirectional Peak Pulse Power (tp = 8/20μs) - See Figure 1	P_{PP}	500	W
Bidirectional Peak Pulse Power (tp = 8/20μs) - See Figure 1	P_{PP}	400	W
Operating Junction Temperature	T_J	-55 to +150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS PER LINE

@ 25°C Unless Otherwise Specified

Parameter Number NOTE1,2	Stand-off Voltage V_{RRM}	Minimum Breakdown Voltage V_{BR} @ I_T=1mA	Maximum Clamping Voltage (See Fig. 2) V_C @ I_P=1A	Maximum Clamping Voltage (See Fig. 2) @ 8/20us V_C @ I_{PP}	Maximum Leakage Current I_R @ V_{RRM}	Typical Capacitance f=1MHz, 0V DC Cj	Device Marking
	V	V	V		μA	pF	
PSD03	3.3	4.0	6.5	10.9V@43.0A	125	500	A
PSD03C	3.3	4.0	7.0	10.9V@39.0A	125	200	G
PSD05	5.0	6.0	9.8	13.5V@42.0A	10	350	B
PSD05C	5.0	6.0	9.8	14.5V@28.0A	10	175	H
PSD08	8.0	8.5	13.4	16.9V@34.0A	10	250	C
PSD08C	8.0	8.5	13.4	18.5V@17.0A	1	150	J
PSD12	12.0	13.3	19.0	25.9V@21.0A	1	150	D
PSD12C	12.0	13.3	19.0	29.5V@14.0A	1	50	K
PSD15	15.0	16.7	24.0	30.0V@17.0A	1	100	E
PSD15C	15.0	16.7	24.0	33.0V@12.0A	1	40	L
PSD18	18.0	20.0	29.0	40.0V@9.0A	1	90	G
PSD18C	18.0	20.0	29.0	40.0V@9.0A	1	40	N
PSD24	24.0	26.7	43.0	49.0V@12.0A	1	88	F
PSD24C	24.0	26.7	43.0	46.2V@9.0A	1	40	M
PSD36	36.0	40.0	60.0	75.0V@5.0A	1	75	R
PSD36C	36.0	40.0	60.0	75.0V@5.0A	1	35	T

Note 1: Part numbers with an additional “C” suffix are bidirectional devices, i.e., PSD05C.
Note 2: Unidirectional Only: Positive potential is applied from pin 2 to 1 or pin 3 to 4

Fig.1 Non-Repetitive Peak Pulse Power vs. Pulse Time

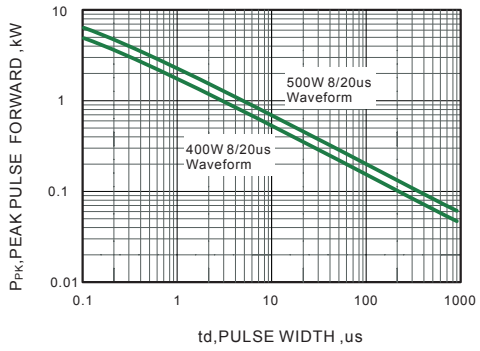


Fig.2 Forward Current Derating Curve

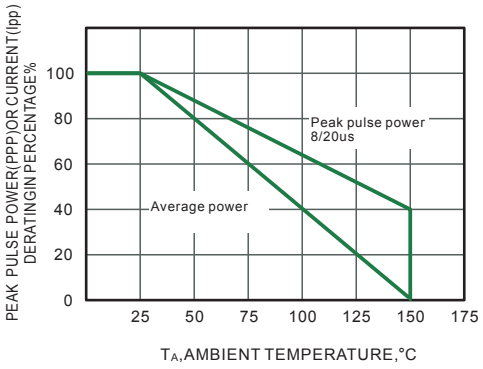


Fig.3 Typical Junction Capacitance

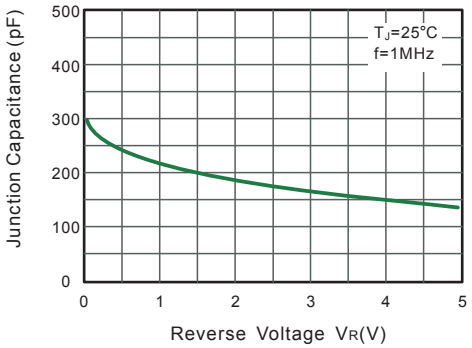
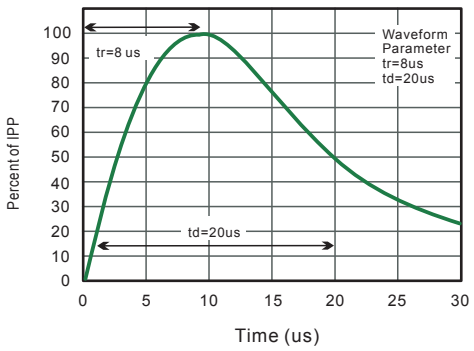


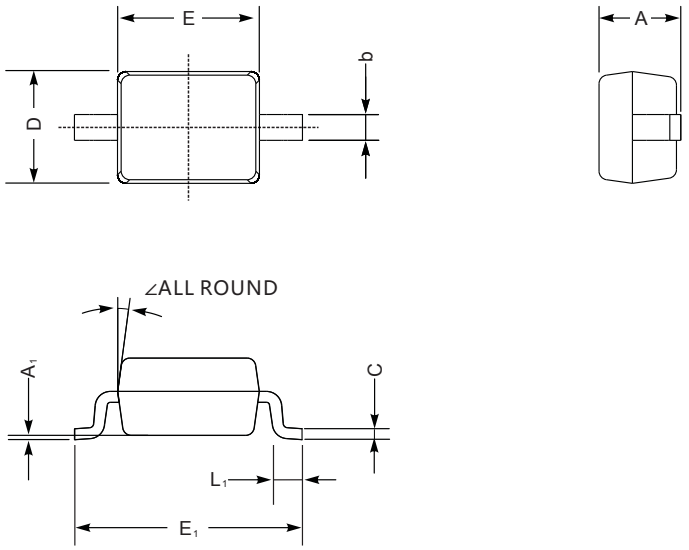
Fig.4 Power Derating Curve



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



SOD-323 mechanical data

UNIT		A	C	D	E	E_1	b	L_1	A_1	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	

The recommended mounting pad size