

Transient Voltage Suppressor

APPLICATIONS

- ◆Laptop Computers
- ◆Cellular Phones
- ◆Digital Cameras
- ◆Personal Digital Assistant (PDA_S)

IEC COMPATIBILITY (EN61000-4)

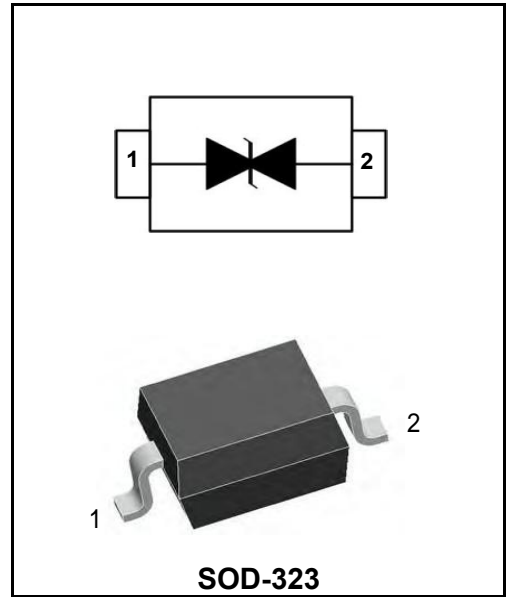
- ◆61000-4-2 (ESD): Air±15kV, Contact ±8kV
- ◆61000-4-4 (EFT): 40A - 5/50ns
- ◆61000-4-5 (Lightning) 6A (8/20μs)

FEATURES

- 500 Watts Peak Pulse Power per Line (tp = 8/20μs)
- Protects one I/O or power line
- Working Voltage: 24V
- Low Leakage Current
- Response Time is Typically < 1 ns

MECHANICAL DATA

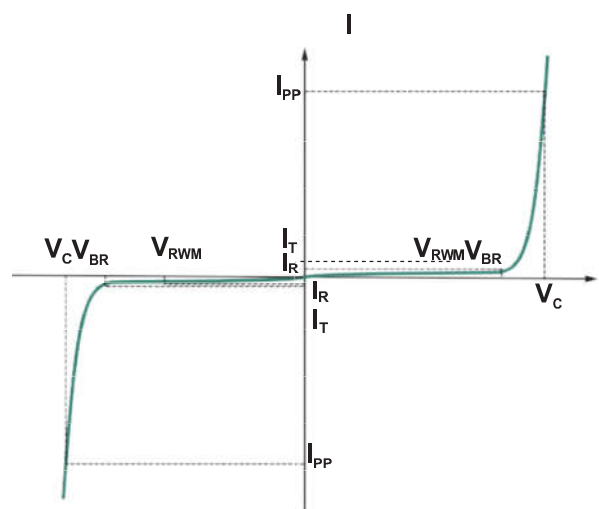
- ◆Case:SOD-323
- ◆Terminals: Solderable per MIL-STD-750, Method 2026
- ◆Approx.Weight:5.48mg/0.00019oz



Marking Code	
ESDC24C-B	24B

ElectronicsParameter

Parameter	Symbol
MaximumReversePeakPulseCurrent	I_{PP}
ClampingVoltage@Ipp	V_C
PeakReverseWorkingVoltage	V_{RWM}
ReverseLeakageCurrent @VRWM	I_R
BreakdownViltage@IT	V_{BR}
TestCurrent	I_T
ForwardCurrent	I_F
ForwardVoltage@IF	V_F



AbsoluteMaximumRating

Rating	Symbol	Value	Unit
PeakPulsePower(tp=8/20us)	PPP	500	W
PeakForwardVoltage(IF=1A,tp=8/20μs)	V _{FP}	1.3	V
OperatingJunctionTemperature	T _J	-55to+125	°C
StorageTemperature	T _{STG}	-55to+150	°C

ElectricalCharacteristics(Tamb=25°C)

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
ReverseStand-OffVoltage	VRWM				24.0	V
ReverseBreakdownVoltage	VBR	IT=1mA	26.7			V
ReverseLeakageCurrent	IR	VRWM=24V,Ta=25°C			1.0	uA
ClampingVoltage	VC	IPP=6A,tp=8/20us		37	40	V
JunctionCapacitance	Cj	VR=0V,f=1HMz		20	25	pF

Typical Characteristics

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

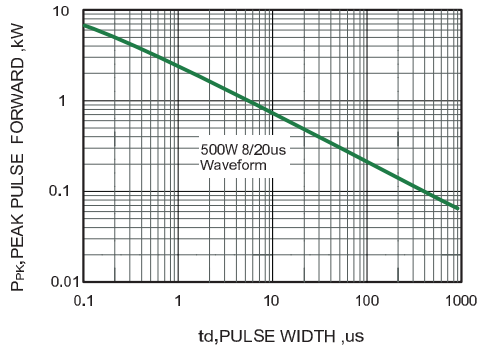


Fig.2 Forward Current Derating Curve

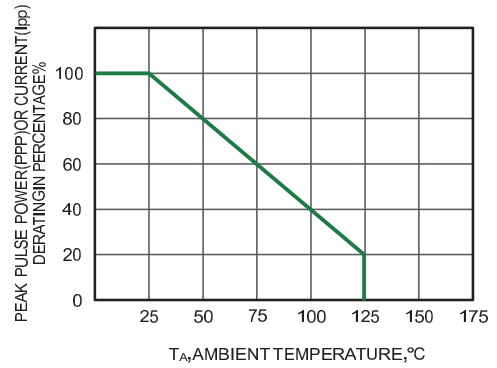


Fig.3 Clamping Voltage vs. Peak Pulse Current

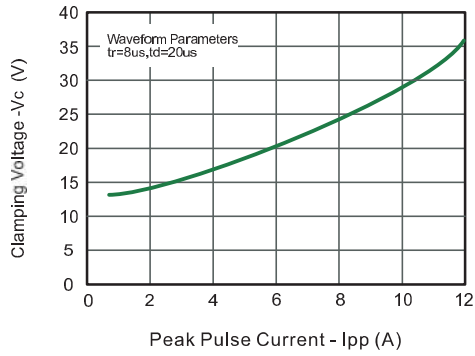


Fig.4 Power Derating Curve

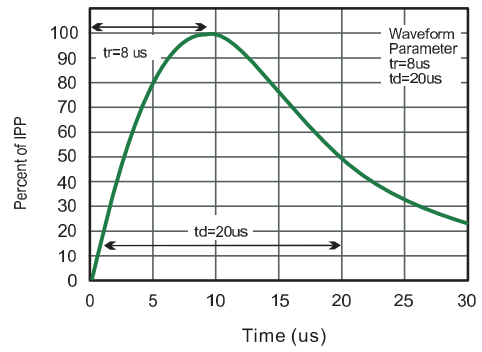
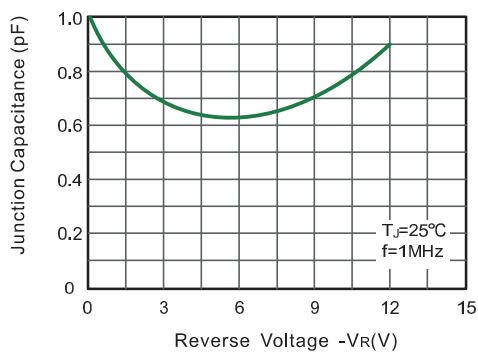


Fig.5 Typical Junction Capacitance



Ordering information

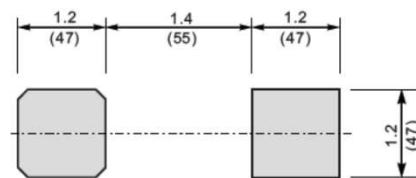
Package	Packing Description	Packing Quantity
SOD-323	Tape/Reel,7"reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-323

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
C	0.08	0.15	3.1	5.9
D	1.2	1.4	47	55
E	1.4	1.8	63	70
E1	2.55	2.75	100	108
b	0.25	0.4	9.8	16
L1	0.2	0.45	7.9	16
A1	-	0.2	-	8
∠	9°			

The recommended mounting pad size



Unit: $\frac{\text{mm}}{\text{mil}}$

Disclaimer

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