

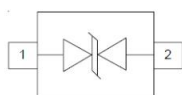
Features

- ◇ 350W (8x20us) Peak Pulse Power
- ◇ Low Clamping Voltage
- ◇ SOD-323 Package
- ◇ RoHS Compliant
- ◇ Matte Tin Lead finish (Pb-Free)◇
- Protect One I/O or Power Line
- ◇ Meet IEC61000-4-2 Level 4:
 - Contact Discharge > 30 kV
 - Air Discharge > 30 kV

Applications

- ◇ Smart Phones
- ◇ Laptop Computers
- ◇ Portable Electronics

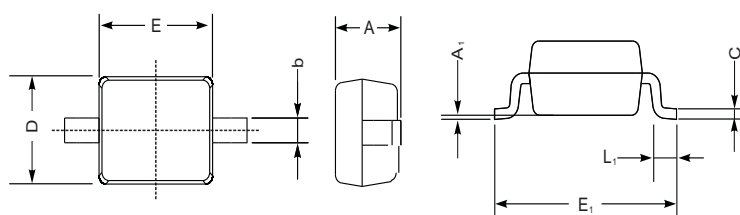
PIN Diagram



Circuit Diagram



SOD323



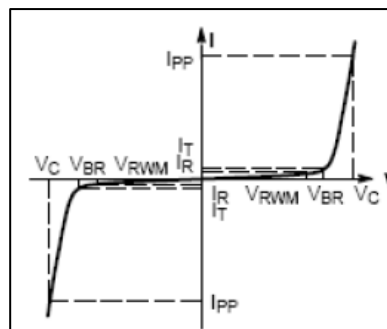
UNIT		A	C	D	E	E ₁	b	L ₁	A ₁
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—
mil	max	43	5.9	55	70	108	16	16	8
	min	32	3.1	47	63	100	9.8	7.9	—

Maximum Ratings (Ta = 25°C)

Symbol	Parameter	Value	Unit
TJ	Junction Temperature	-55 to +150	°C
TSTG	Storage Temperature	-55 to +150	°C
Ipp Max	Maximum Peak Pulse Current	10	A
PPK	Peak Pulse Power	350	W

SD18C

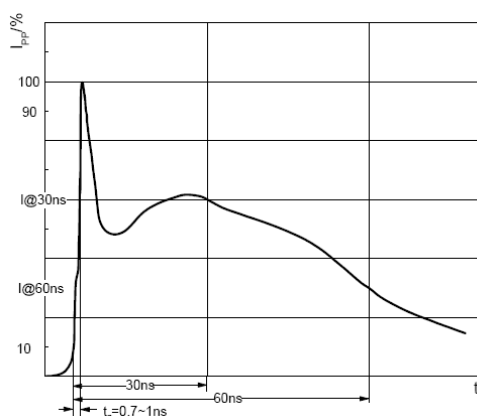
Symbol	Parameter
V_C	Clamping Voltage @ I_{PP}
I_{PP}	Peak Pulse Current
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_R	Reverse Leakage Current @ V_{RWM}
V_{RWM}	Reverse Standoff Voltage



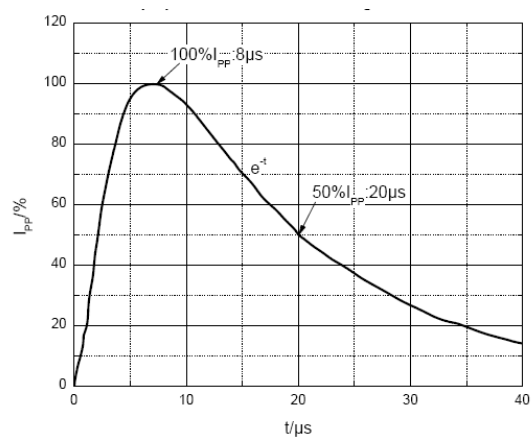
V-I characteristics for a Bi-directional TVS

Electrical Characteristics (Ta = 25°C)

PSD03C						
Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_{RWM}	Reverse Working Peak Voltage				18	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	20	21	23	V
I_R	Reverse Leakage Current	$V_{RWM} = 18\text{V}$			0.5	μA
V_C	Clamping Voltage	$I_{PP} = 1\text{A} (8/20\mu\text{s})$			27	V
V_C	Clamping Voltage	$I_{PP} = 10\text{A} (8/20\mu\text{s})$			35	V
I_{PP}	Peak Pulse Current	$t_p = 8/20\mu\text{s}$			10	A
C_J	Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$		42	82	pF

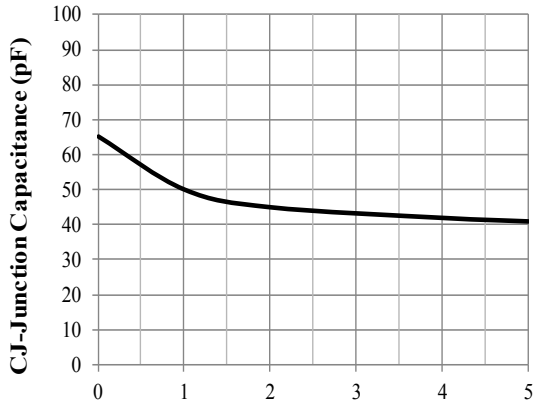


ESD pulse waveform according to IEC61000-4-2

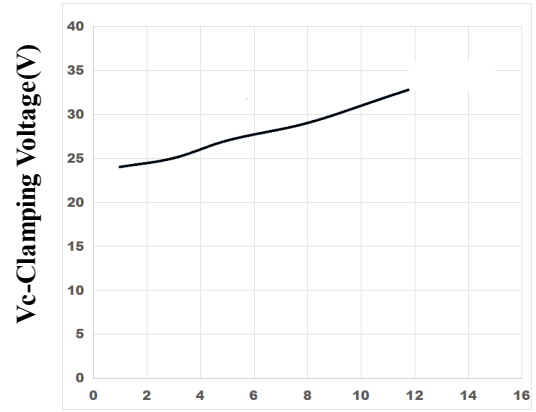


8/20μs pulse waveform according to IEC 61000-4-5

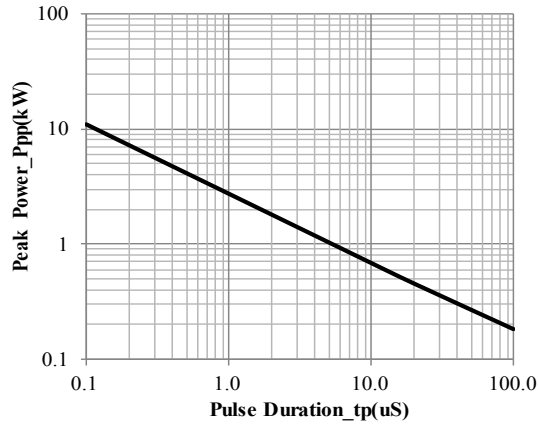
RATING AND CHARACTERISTIC CURVES (SD18C)



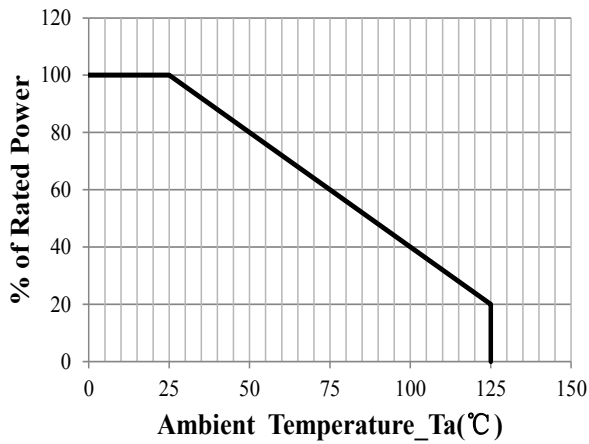
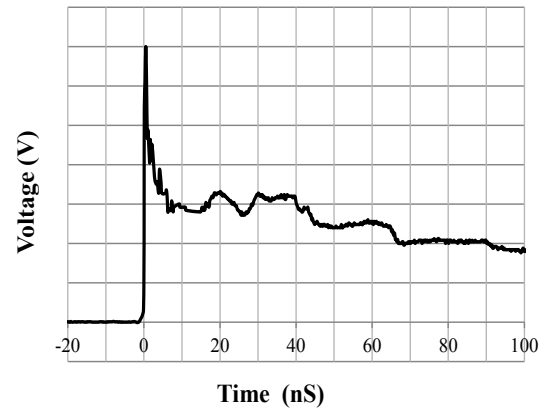
Junction Capacitance vs. Reverse Voltage



Clamping Voltage vs. Peak Pulse Current



Peak Pulse Power vs. Pulse Time



Power Derating Curve

