

Features

- * 450W peak pulse power (8/20 μ s)
- * Protects one data or power line
- * Operating voltage: 3.3V
- * Ultra low clamping voltage
- * Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: ± 30 kV
Contact discharge: ± 30 kV
 - IEC61000-4-4 (EFT) 80A (5/50ns)
 - IEC61000-4-5 (SURGE) 38A (8/20us)

Mechanical Characteristics

- * Package: SOD-323
- * Ultra low leakage: nA level
- * Case Material: "Green" Molding Compound.
- * UL Flammability Classification Rating 94V-0
- * Moisture Sensitivity: Level 3 per J-STD-020

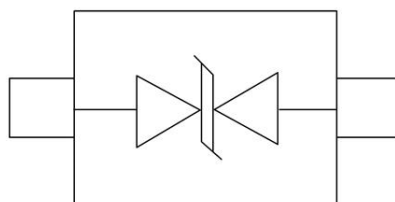
Applications

- * Cellular Handsets and Accessories
- * Personal Digital Assistants
- * Notebooks and Handhelds
- * Portable Instrumentation
- * Peripherals

Ordering Information

Part Number	Qty per Reel	Reel Size
TPPESD3V3L1BA	3000	7"

Dimensions and Pin Configuration



SOD-323

Marking: 3/ε Or 03B

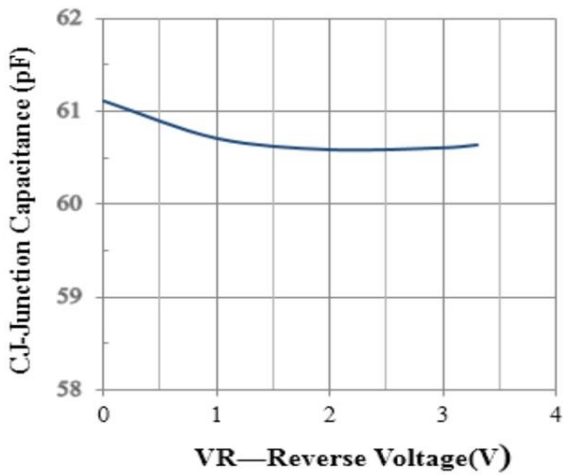
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	450	W
Peak Pulse Current (8/20μs)	I _{PP}	38	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	± 30 ± 30	kV
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

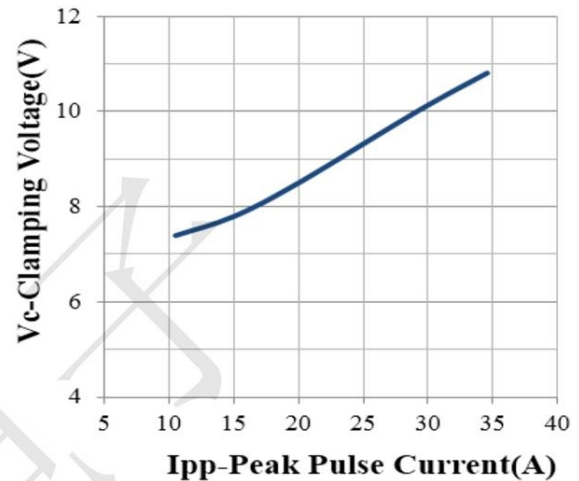
Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V _{RWM}			3.3	V	
Breakdown Voltage	V _{BR}	4.0	4.7	6.0	V	I _T =1mA
Leakage Current	I _{Leak}			200	nA	V _{RWM} =3.3V
Clamping Voltage	V _C			8.5	V	I _{PP} =20A, T _p =8/20μs
Clamping Voltage	V _C			12.0	V	I _{PP} =38A, T _p =8/20μs
Dynamic Resistance	R _{DYN}		0.1		Ω	TLP=0.2/100ns
Junction Capacitance	C _J		50	70	pF	V _R =0V, f=1MHz

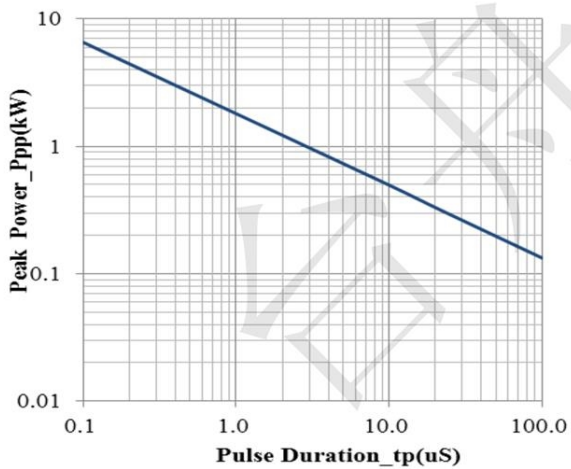
Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified) www.sot23.com.tw



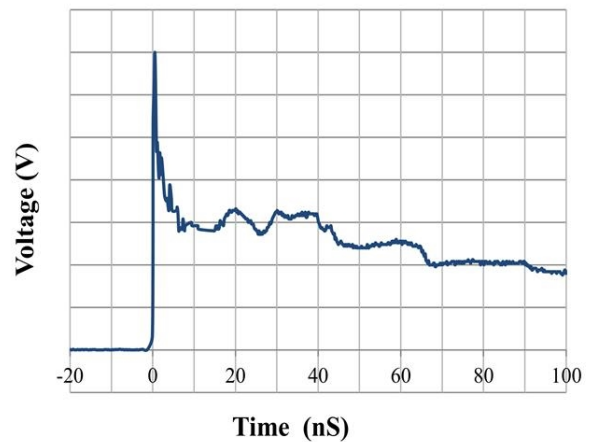
Junction Capacitance vs. Reverse Voltage



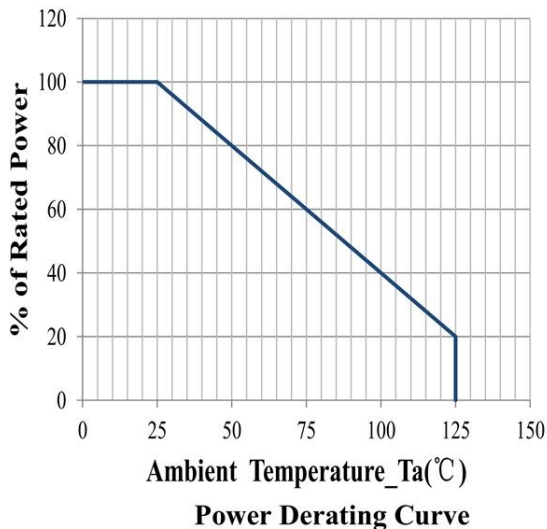
Clamping Voltage vs. Peak Pulse Current



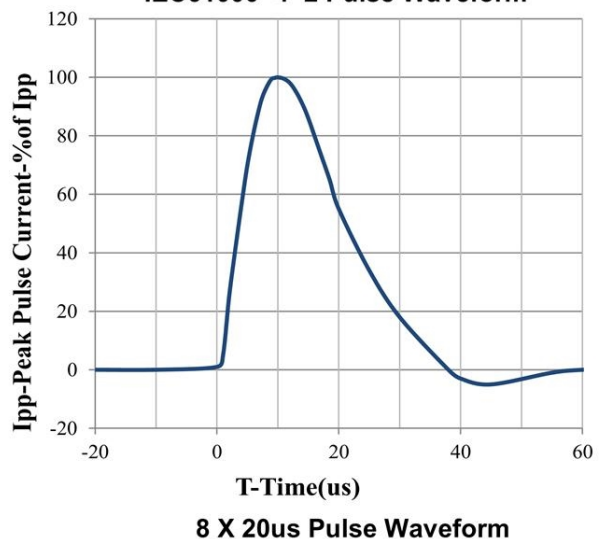
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform

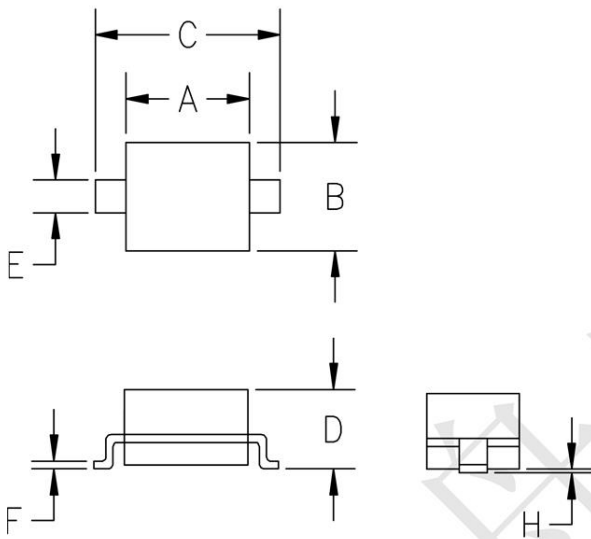


Power Derating Curve



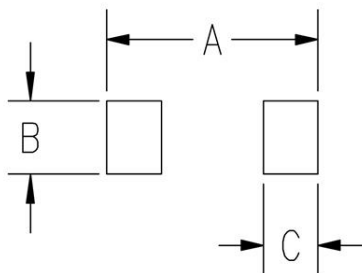
8 X 20us Pulse Waveform

Outline Drawing - SOD323



SYM	DIMENSIONS			
	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.50	1.80	0.060	0.071
B	1.20	1.40	0.045	0.054
C	2.30	2.70	0.090	0.107
D	-	1.10	-	0.043
E	0.30	0.40	0.012	0.016
F	0.10	0.25	0.004	0.010
H	-	0.10	-	0.004

Land Pattern - SOD323



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
A	3.15	0.120
B	0.80	0.031
C	0.80	0.031