

Features

- Ultra low leakage: nA level
- Operating voltage: $\pm 13.5V$
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30kV$
 - Contact discharge: $\pm 30kV$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 6A (8/20 μs)
- RoHS Compliant

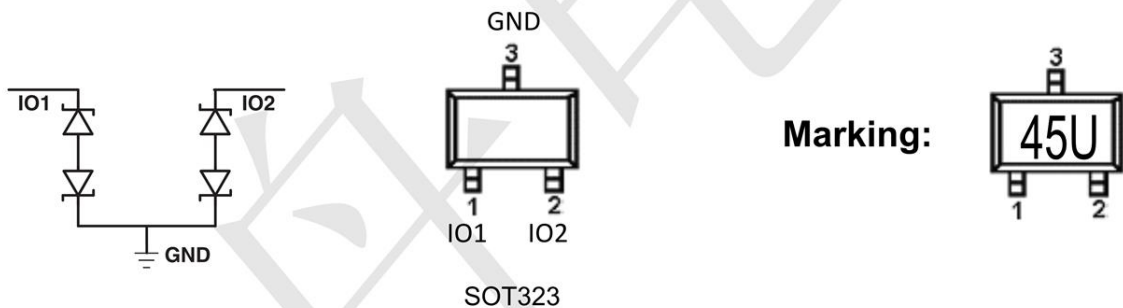
Mechanical Characteristics

- Package: SOT323
- Lead Finish: Matte Tin
- UL Flammability Classification Rating 94V-0
- Shipping Qty : 3000pcs/7Inch Tape & Reel

Applications

- Cell Phones
- Audio Interface Connections
- Consumer Electronics (DVR, Set-Top Box, TV)
- Industrial Interfaces (RS-232, RS-485, RS-422, LVDS)

Dimensions and Pin Configuration



Marking:



G	Ground
IO	ESD protected channel
IO	ESD protected channel

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

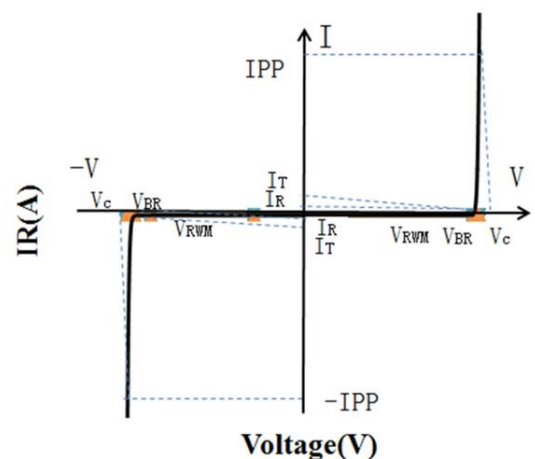
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	65	W
Peak Pulse Current (8/20μs)	Ipp	6	A
ESD per IEC 61000-4-2 (Air)	VESD	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

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

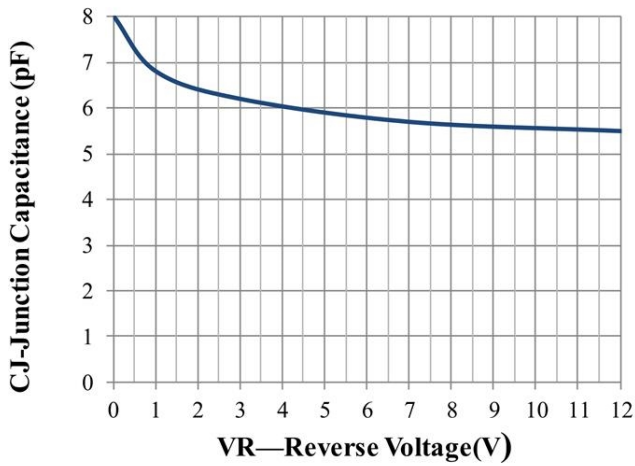
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM	-13.5		+13.5	V	
Breakdown Voltage	VBR	14			V	IT = 10mA
Reverse Leakage Current	IR		7	50	nA	VRWM = 13V
Clamping Voltage	VC			7	V	Ipp = 1A (8 x 20μs pulse)
Clamping Voltage	VC			10	V	Ipp = 6A (8 x 20us pulse)
Junction Capacitance	CJ		9	18	pF	VR = 0V, f = 1MHz

Portion Electronics Parameter

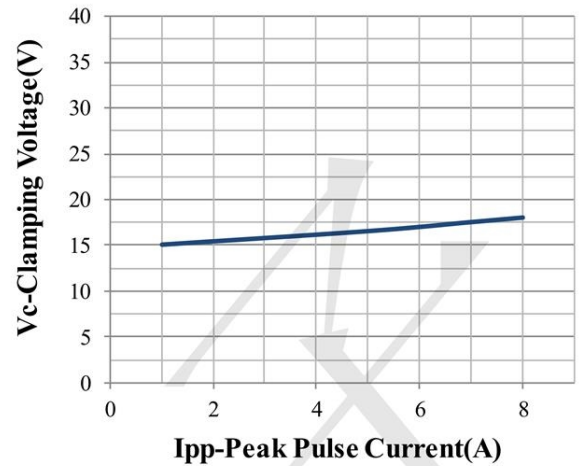
Symbol	Parameter
IT	Test Current
Ipp	Maximum Reverse Peak Pulse Current
Vc	Clamping Voltage @Ic



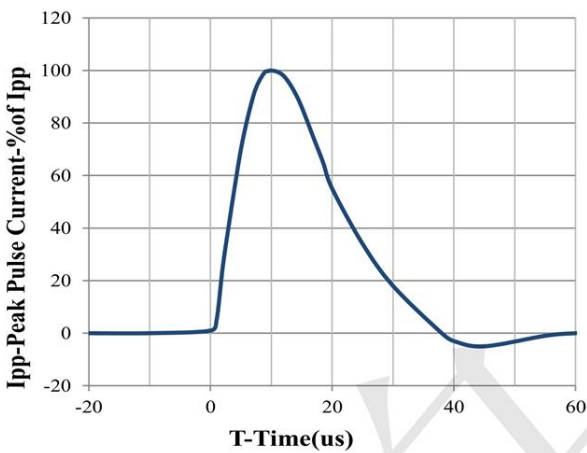
Characteristic Curves



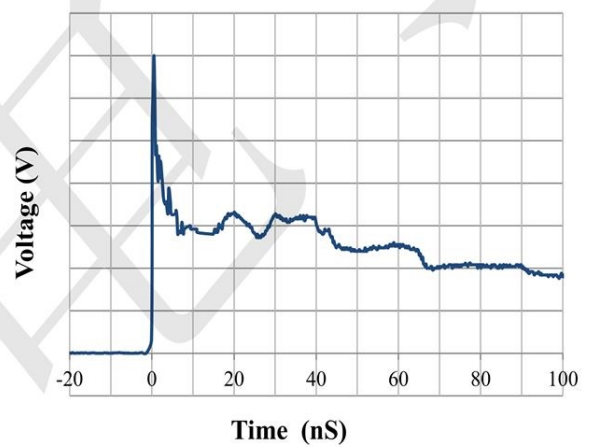
Junction Capacitance vs. Reverse Voltage



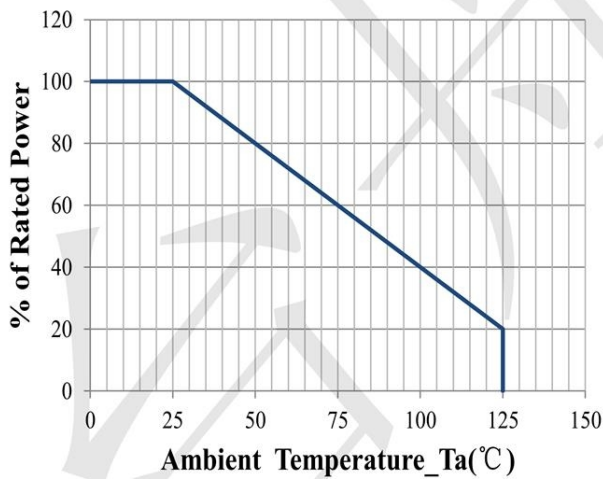
Clamping Voltage vs. Peak Pulse Current



8 X 20us Pulse Waveform

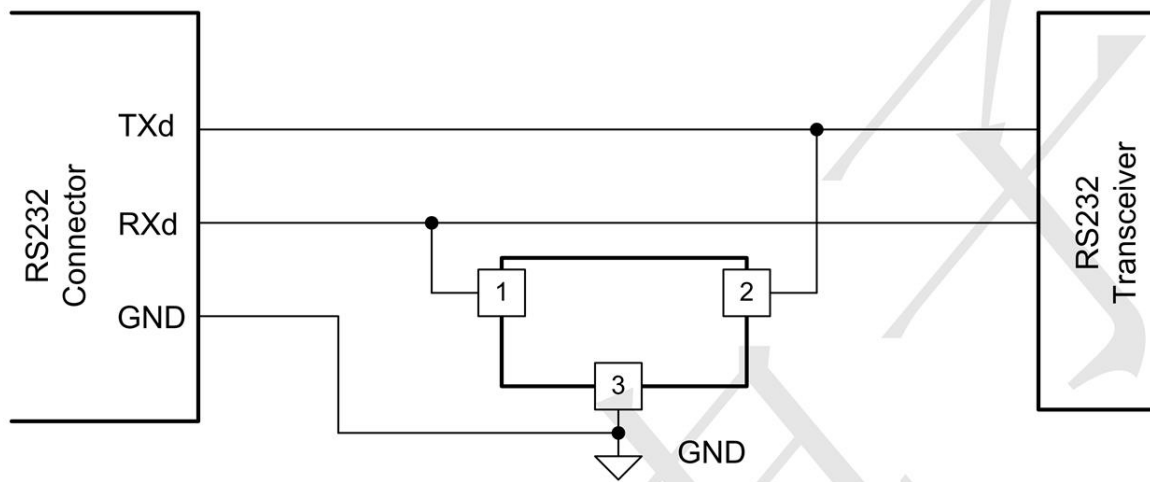


IEC61000-4-2 Pulse Waveform

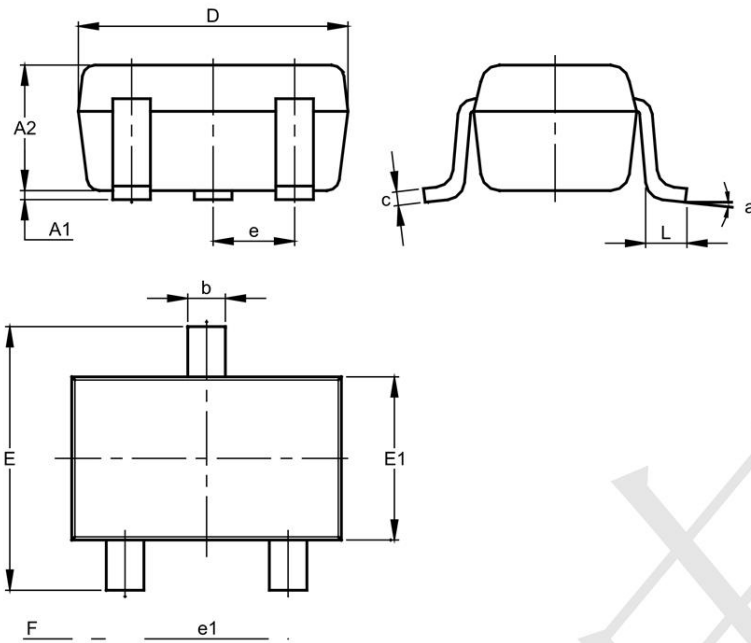


Power Derating Curve

Typical Application

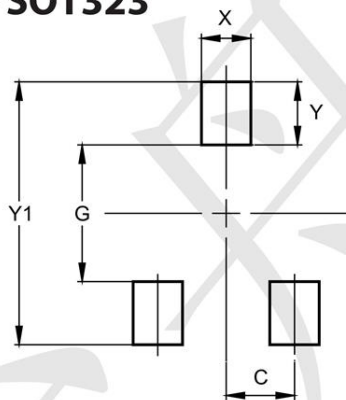


Outline Drawing - SOT323(SC70-3)



SOT323			
Dim	Min	Max	Typ
A1	0.00	0.10	0.05
A2	0.90	1.00	0.95
b	0.25	0.40	0.30
c	0.10	0.18	0.11
D	1.80	2.20	2.15
E	2.00	2.20	2.10
E1	1.15	1.35	1.30
e	0.650 BSC		
e1	1.20	1.40	1.30
F	0.375	0.475	0.425
L	0.25	0.40	0.30
a	0°	8°	--
All Dimensions in mm			

Land Pattern - SOT323



Dimensions	Value (in mm)
C	0.650
G	1.300
X	0.470
Y	0.600
Y1	2.500