

Features

- Ultra low capacitance: 0.3pF typical (IO to IO)
- Ultra low leakage: nA level
- Low operating voltage: 16V
- Complies with following standards:
- – IEC 61000-4-2 (ESD) immunity test

Air discharge: $\pm 15\text{kV}$

Contact discharge: $\pm 8\text{kV}$

- RoHS Compliant

Reference: UMZ18NUM

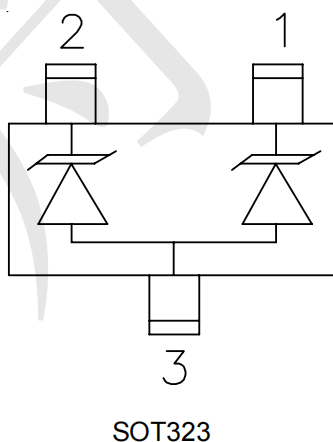
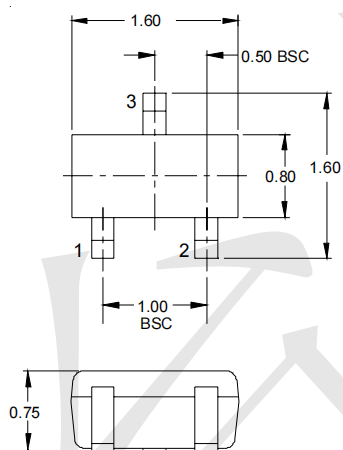
Mechanical Characteristics

- Package: SOT-323
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Shipping Qty : 3000pcs/7Inch Tape & Reel

Applications

- USB2.0/3.0
- LVDS
- HDMI
- High Speed Differential Pairs

Dimensions and Pin Configuration



Marking: 72.W

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

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Air)	VESD	±15	kV
ESD per IEC 61000-4-2 (Contact)		±8	
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			16	V	
Breakdown Voltage	VBR	16.5			V	IT = 1mA
Reverse Leakage Current	IR			0.8	μA	VRWM = 16V
Clamping Voltage	VC			28	V	IPP = 1A (8 x 20us pulse)
Clamping Voltage	VC			30	V	IPP = 1.5A (8 x 20us pulse)
Junction Capacitance	CJ		0.5	0.7	pF	Vr=0V ,f=1MH Pin1 or 2 to Pin3
			0.3		pF	Vr=0V ,f=1MH Pin1 to Pin2

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

Fig1. 8/20 μs Pulse Waveform

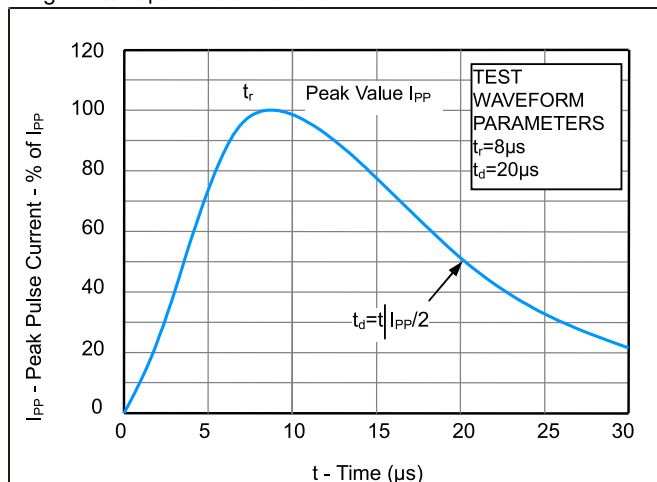


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

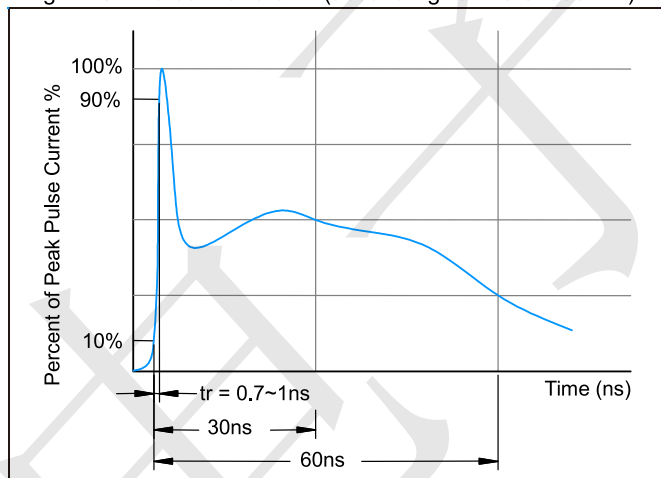
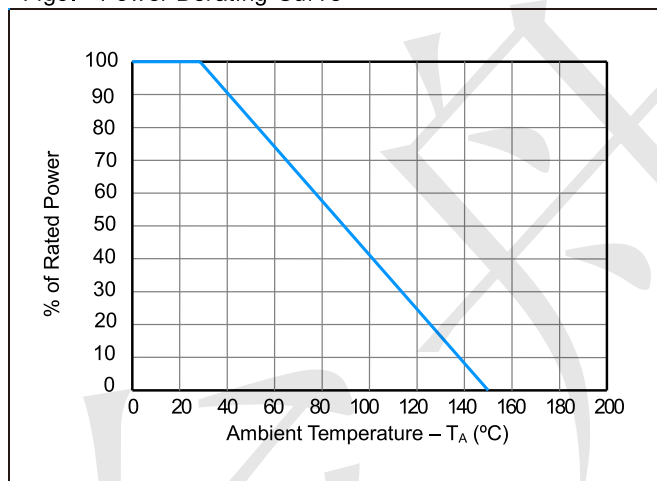
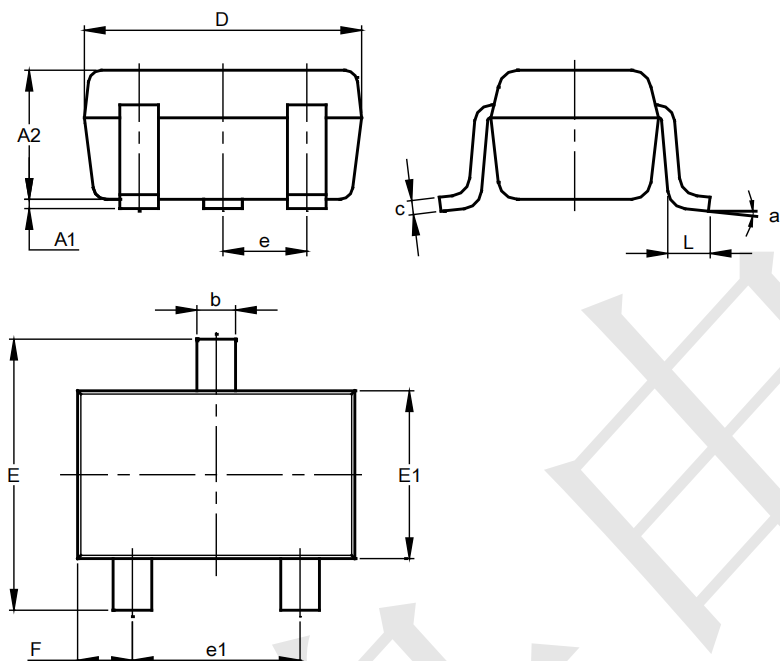


Fig3. Power Derating Curve

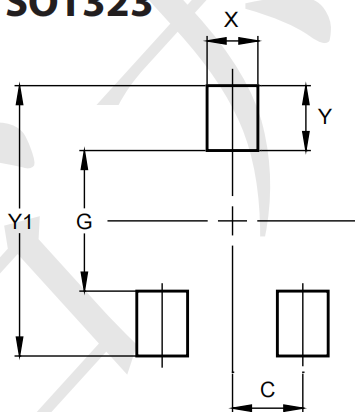


Outline Drawing - SOT323(SC70-3)



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