

Features

- Ultra low leakage: nA level
- Operating voltage: 70V
- Low clamping voltage
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning)10A (8/20 μs)
- RoHS Compliant

Mechanical Characteristics

- Package: SOT323
- Lead Finish: Matte Tin
- UL Flammability Classification Rating 94V-0



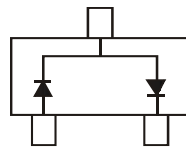
Applications

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

Ordering Information

Part Number	Qty per Reel	Reel Size
TPESD1P0RFW	3000	7"

Dimensions and Pin Configuration



SOT323

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

Parameter	Symbol	Value	Unit
Peak Pulse Current (8/20μs)	Ipp	10	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			70	V	
Reverse Leakage Current	IR			100	nA	VRWM = 70V
Clamping Voltage	VC			7	V	I _{PP} = 3A (8 x 20μs pulse)
Clamping Voltage	VC			15	V	I _{PP} = 10A (8 x 20μs pulse)
Junction Capacitance	CJ		1	1.5	pF	VR = 0V, f = 1MHz

Fig1. 8/20 μ s Pulse Waveform

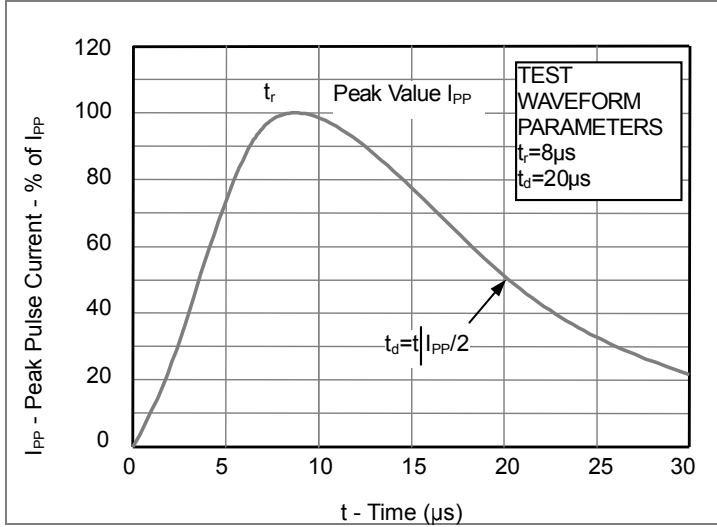


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

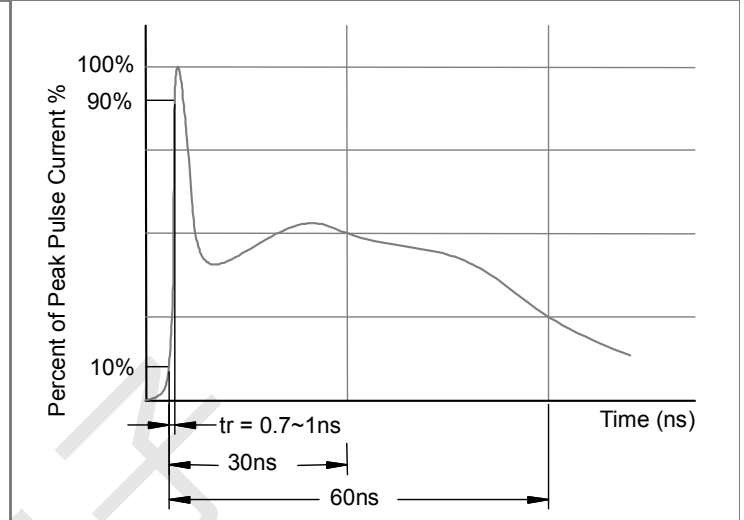
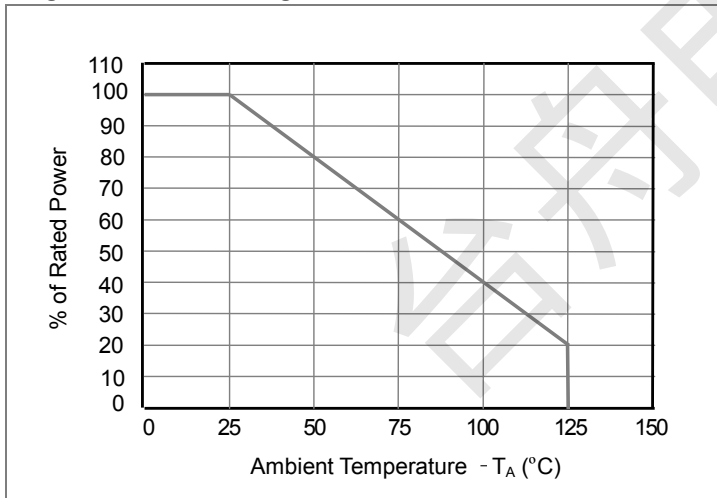


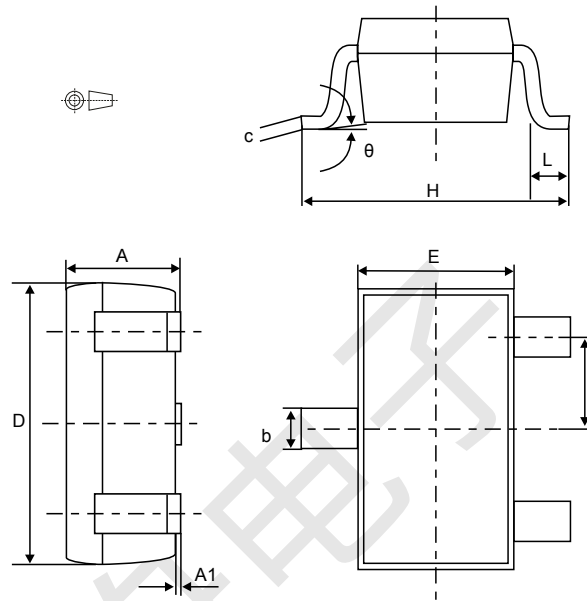
Fig3. Power Derating Curve



Outline Drawing - SOT323(SC70-3)

www.sot23.com.tw

SOT323-3L package outline



Ref.	Dimensions					
	Millimeters			Inches ⁽¹⁾		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	0.80		1.10	0.031		0.044
A1	0.00		0.10	0.000		0.004
b	0.25		0.40	0.009		0.016
c	0.10		0.26	0.003		0.011
D	1.80	2.00	2.20	0.070	0.079	0.087
E	1.15	1.25	1.35	0.045	0.049	0.054
e	0.60	0.65	0.70	0.023	0.026	0.028
H	1.80	2.10	2.40	0.070	0.083	0.095
L	0.10	0.20	0.30	0.004	0.008	0.012
θ		0	30°		0	30°