

Features

- IEC 61000-4-2 (ESD)
- $\pm 30\text{kV}$ Contact Discharge
- $\pm 30\text{kV}$ Air Discharge
- 450W Peak pulse Power (8/20us)
- IEC 61000-4-4 EFT Protection
- 40A (5/50ns)



SOD-323 top view



Schematic diagram

Application

- Audio
- Pushbuttons
- TV and Monitors
- Wearables
- Handheld-wireless Systems



Marking and pin assignment



Halogen-Free

Absolute Maximum rating

Over operating free-air temperature range (unless otherwise noted)

Symbol	Parameter	Value	Unit
P _{pk}	Peak pulse power (tp=8/20us) @25°C	80	W
I _{pp}	Peak pulse current (tp=8/20us) @25°C	6	A
V _{ESD}	ESD (IEC61000-4-2 air discharge) @25°C	± 30	kV
V _{ESD}	ESD (IEC61000-4-2 contact discharge) @25°C	± 30	kV
T _J	Junction temperature	150	°C
T _{OP}	Operating temperature	-40~125	°C
T _{STG}	Storage temperature	-55~150	°C
T _L	Lead temperature	260	°C

Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
ESDBL7V0D3	SOD-323	7M	3,000	45,000	180,000	7" reel

ELECTRICAL PARAMETER

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V_{RWM}	Reverse Standoff Voltage		--	--	7.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T=1mA$	7.5	--	--	V
I_R	Reverse Leakage Current	$V_{RWM}=7V$	--	--	1	μA
V_C	Clamping Voltage	$I_{PP}=1A; t_p=8/20\mu s$	--	--	9	V
V_C	Clamping Voltage	$I_{PP}=6A; t_p=8/20\mu s$	--	--	14	V
C_J	Junction Capacitance	I/O to GND; VR=0V; f=1MHz	--	7	15	pF

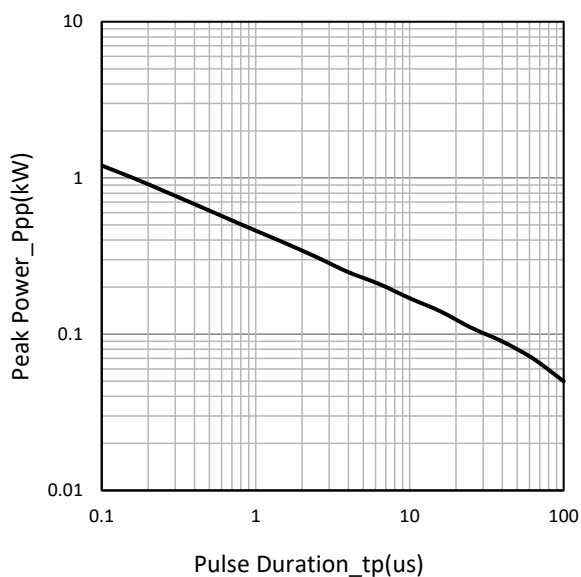
Typical Operating Characteristics


Figure 1. Pulse rating curve

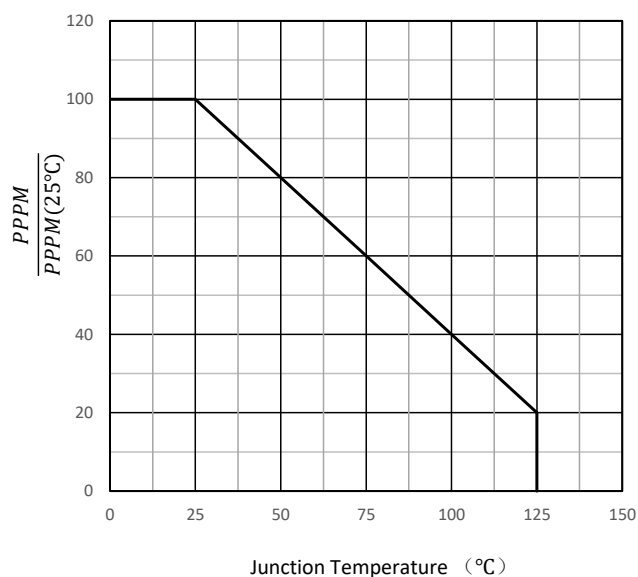


Figure 2 Peak pulse power derating curve

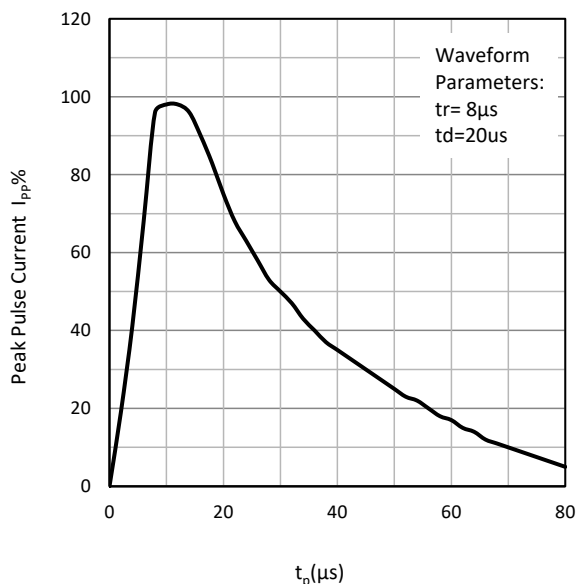
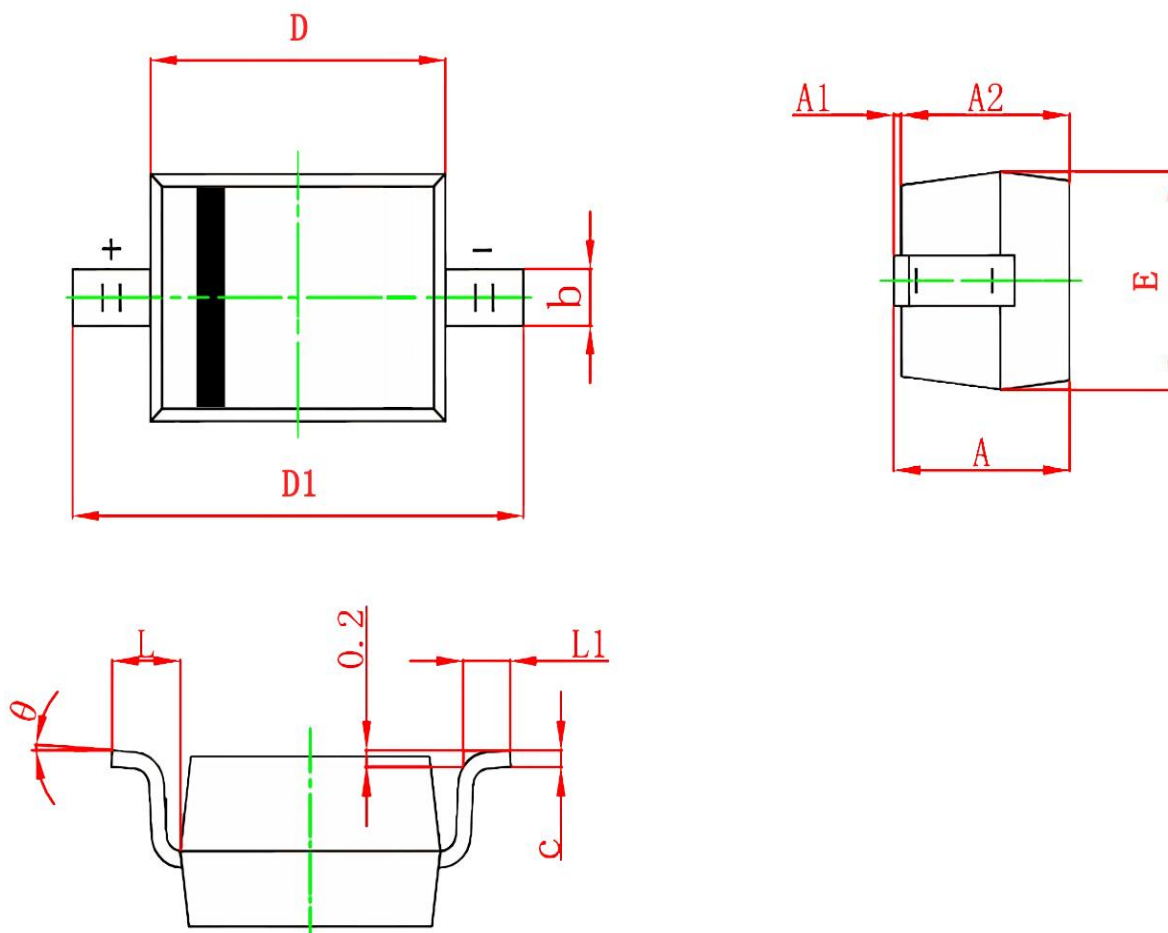


Figure 3 Pulse waveform

SOD-323 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	-	1.100	-	0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.600	1.800	0.063	0.071
D1	2.500	2.750	0.098	0.108
E	1.200	1.400	0.047	0.055
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°