

SOD-323 Plastic-Encapsulate ESD Protection Diodes

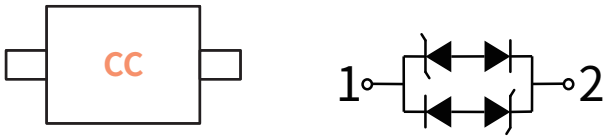
Features

- Low leakage current
- SOD-323 surface mount package
- IEC 61000-4-2 (ESD Air): ±30kV
- IEC 61000-4-2 (ESD Contact): ±30kV
- IEC 61000-4-5 (Lightning 8/20μs): 25A

Applications

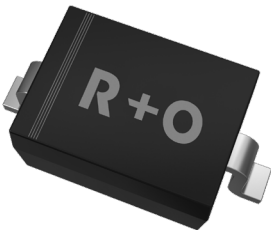
- LED Lighting Modules
- RS232/RS485
- CAN and LIN Bus
- Portable Instrumentation
- General Purpose I/O

Function Diagram



Reverse Working Voltage
3.3V Max.
High capacitance
1.5pF(Max.)

SOD-323



Maximum Ratings (Ta=25°C Unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
VESD	Electrostatic Discharge Voltage	ESD per IEC 61000-4-2(Air)	±30	KV
		ESD per IEC 61000-4-2(Contact)	±30	KV
P _{PP}	Peak Pulse Power	tp = 8/20 μs	575	W
I _{PP}	Rated Peak Pulse Current	tp = 8/20 μs	25	A
T _J	Operating JunctionTemperature Range	—	-55 to +125	°C
T _{STG}	Operating JunctionTemperature Range	—	-55 to +150	°C

Electrical Parameter

SYMBOL	PARAMETER
V _C	Clamping Voltage @ I _{PP}
V _{BR}	Breakdown Voltage @ I _T
I _{PP}	Peak Pulse Current
I _T	Test Current
I _R	Reverse Leakage Current @ VRWM
V _{RWM}	Peak Reverse Working Voltage
P _{PP}	Peak Pulse Power Dissipation
C _J	Junction Capacitance @ V _R =0V,f=1MHz
I _F	Forward Current
V _F	Forward Voltage @I _F

Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	CONDITION	Min	Typ	Max	UNIT
Peak Reverse Working Voltage	V_{RWM}	$T_a=25^{\circ}C$	—	—	3.3	V
Breakdown Voltage	V_{BR}	$I_R=1.0mA, T_a=25^{\circ}C$	3.8	4	—	V
Reverse Leakage Current	I_R	$V_R=3.3V, T_a=25^{\circ}C$	—	—	0.1	μA
Clamping Voltage	V_C	$I_{PP}=1.0A, t_p=8/20\mu s$	—	—	7	V
		$I_{PP}=19A, t_p=8/20\mu s$	—	—	18.5	
		$I_{PP}=25A, t_p=8/20\mu s$	—	—	23	
Junction Capacitance	C_J	$V_R=0V, f=1MHz$	—	0.8	1.5	pF

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

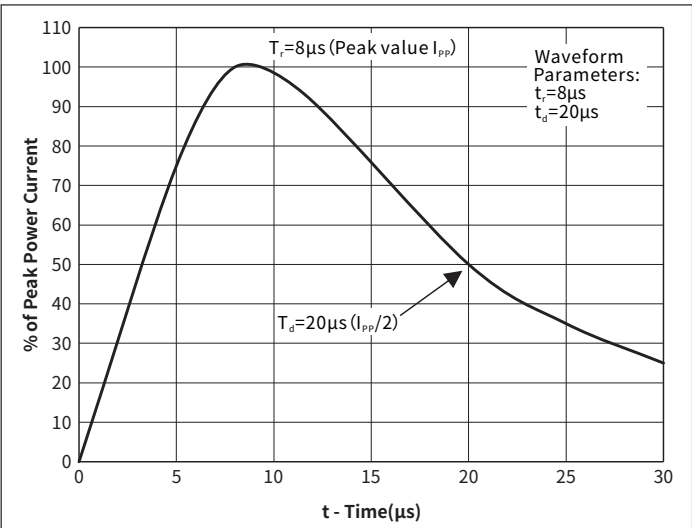


Fig.1 Pulse Waveform

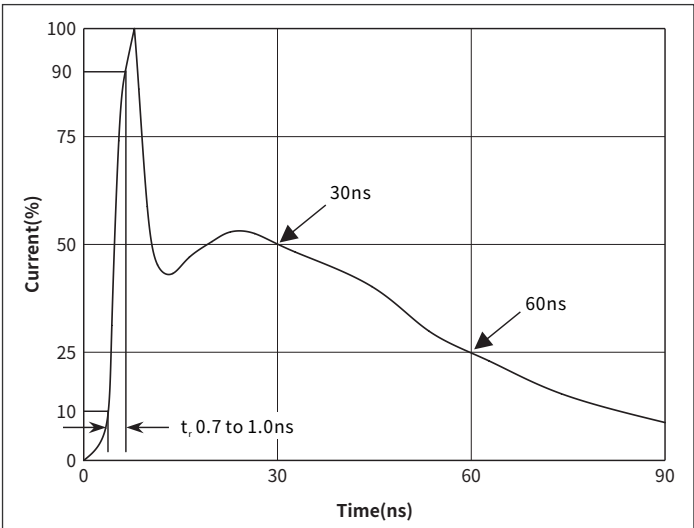


Fig.2 Pulse Waveform-ESD(IEC61000-4-2)



Fig.3 Peak Pulse Power vs. Pulse Time

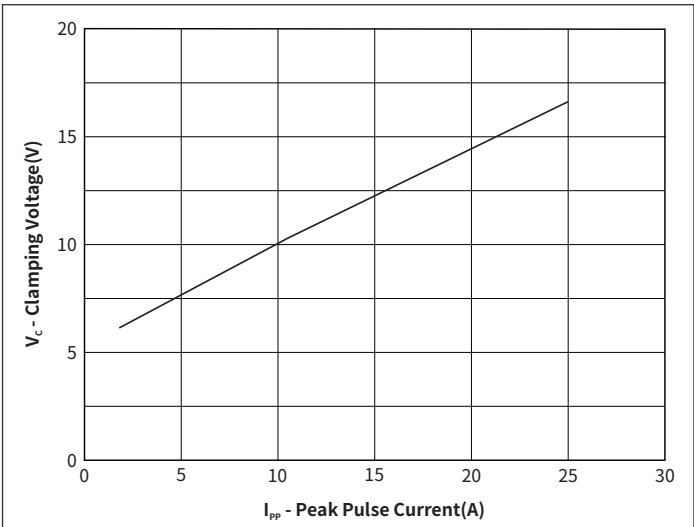
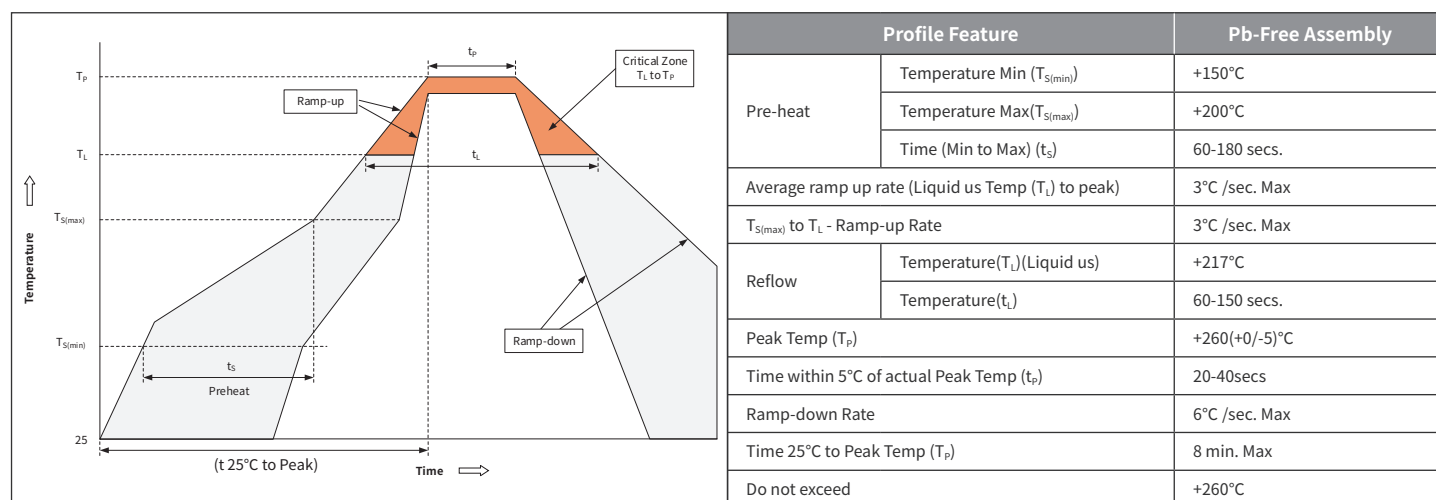


Fig.4 Clamping Voltage vs. Peak Pulse Current

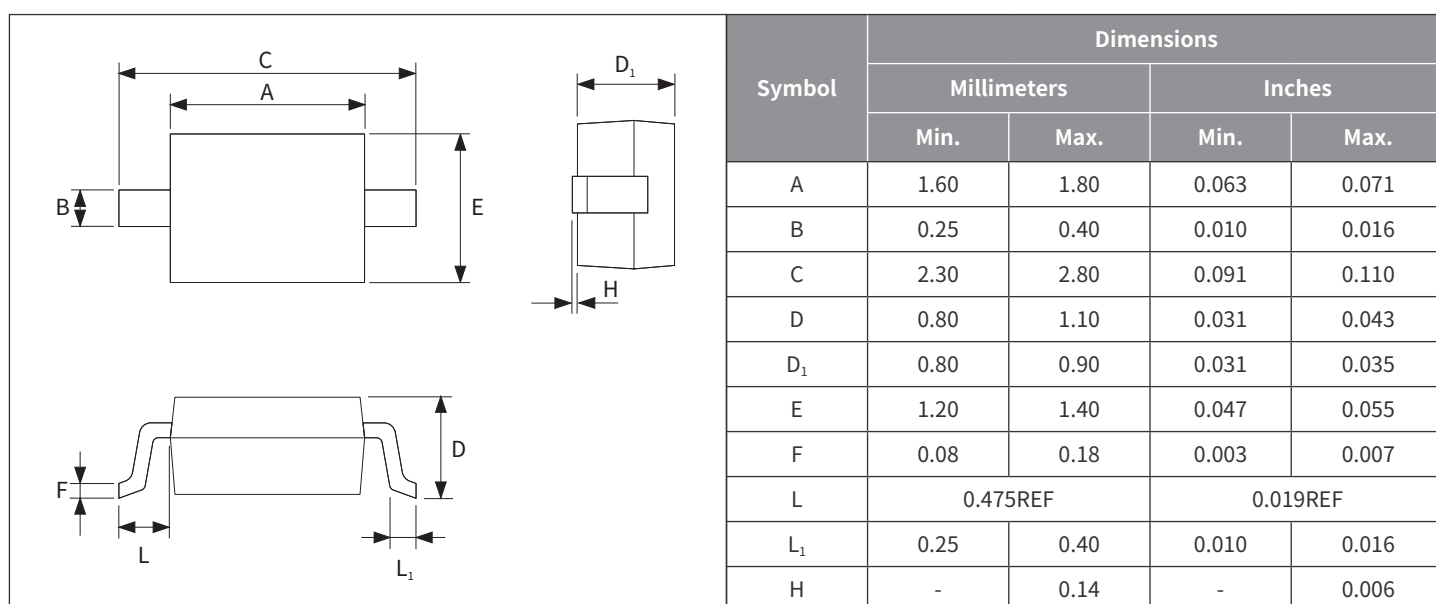
● Ordering Information

PREFERED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H3V3SD3B	SOD-323	2.55×1.30×0.95	7" REEL	3000

● Recommended Soldering Conditions



● Package Outline Dimensions (SOD-323)



● Suggested Pad Layout

