

SOD-323 Plastic-Encapsulate ESD Protection Diodes

● Features

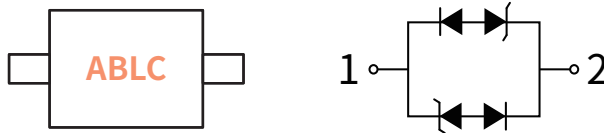
- Low leakage current
- SOD-323 surface mount package
- IEC 61000-4-2 (ESD Air): $\pm 30\text{kV}$
- IEC 61000-4-2 (ESD Contact): $\pm 30\text{kV}$
- IEC 61000-4-5 (Lightning 8/20 μs): 20A

● Applications

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

● Reference News

Reverse Working Voltage
12V Max.
Small capacitance
1.5pF(Max.)

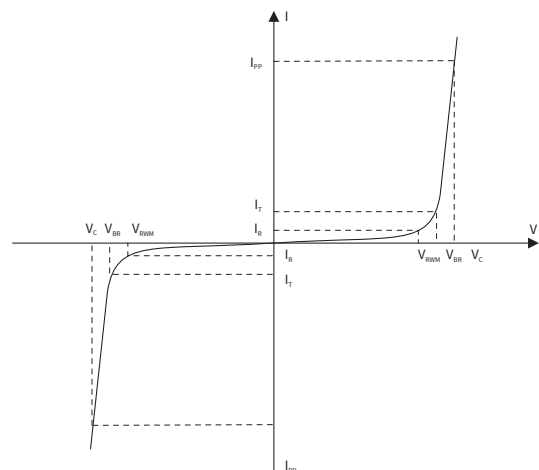


● Maximum Ratings (Ta=25°C Unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{ESD}	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	640	W
I _{PP}	Rated Peak Pulse Current	tp = 8/20 μs	20	A
T _J	Operating JunctionTemperature Range	—	-55 to +125	°C
T _{STG}	Operating JunctionTemperature Range	—	-55 to +150	°C

● Electrical Parameter

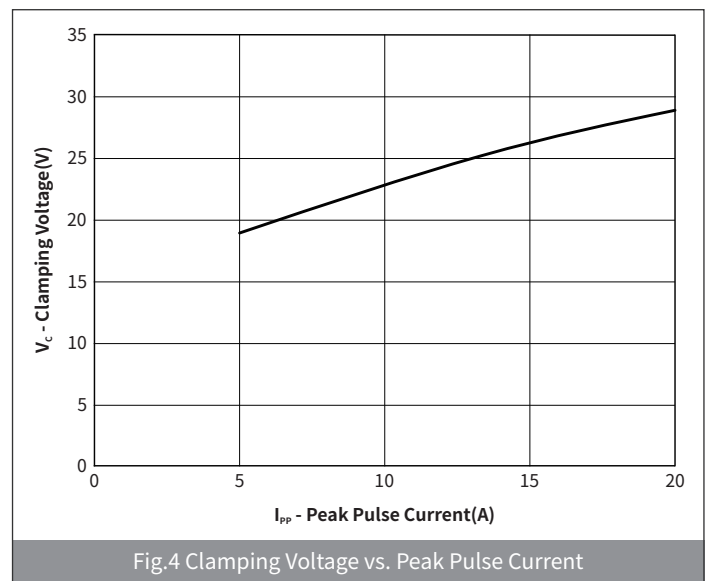
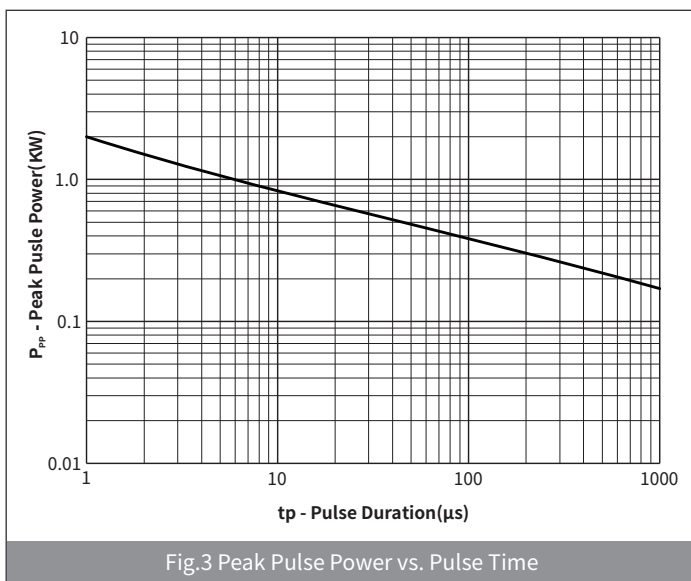
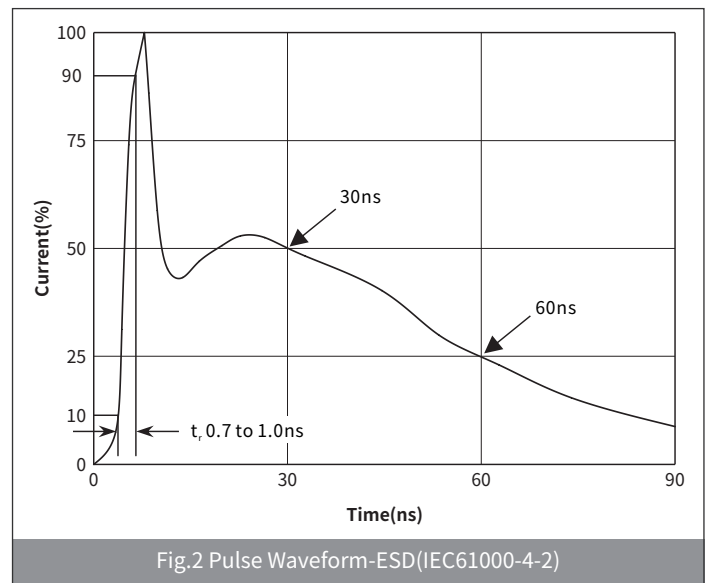
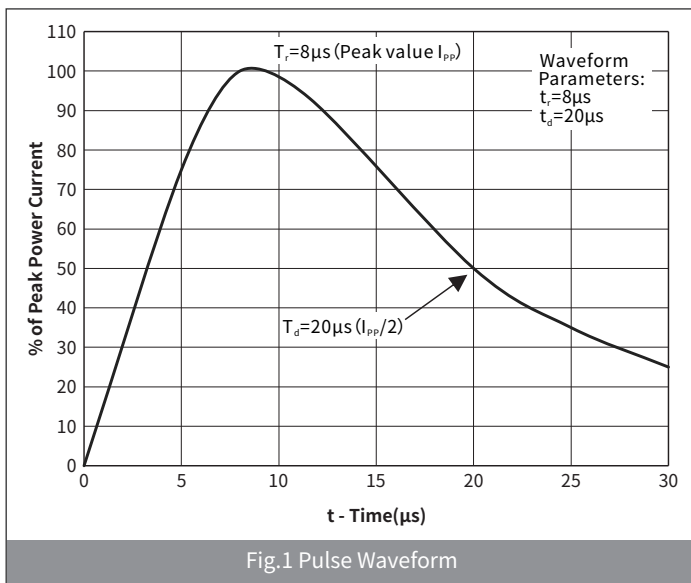
SYMBOL	PARAMETER
V _C	Clamping Voltage @ I _{PP}
V _{BR}	Breakdown Voltage @ I _T
I _{PP}	Peak Pulse Current
I _T	Test Current
I _R	Reverse Leakage Current @ VRWM
V _{RWM}	Peak Reverse Working Voltage
P _{PP}	Peak Pulse Power Dissipation
C _J	Junction Capacitance @ V _R =0V,f=1MHz
I _F	Forward Current
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}	$T_a=25^\circ\text{C}$	—	—	12	V
Breakdown Voltage	V_{BR}	$I_R=1\text{mA}, T_a=25^\circ\text{C}$	13.3	—	16.5	V
Reverse Leakage Current	I_R	$V_R=12\text{V}, T_a=25^\circ\text{C}$	—	—	1.0	μA
Clamping Voltage	V_C	$I_{PP}=5\text{A}, t_p=8/20\mu\text{s}$	—	—	20	V
		$I_{PP}=15\text{A}, t_p=8/20\mu\text{s}$	—	—	28	
		$I_{PP}=20\text{A}, t_p=8/20\mu\text{s}$	—	—	32	
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$	—	—	1.5	pF

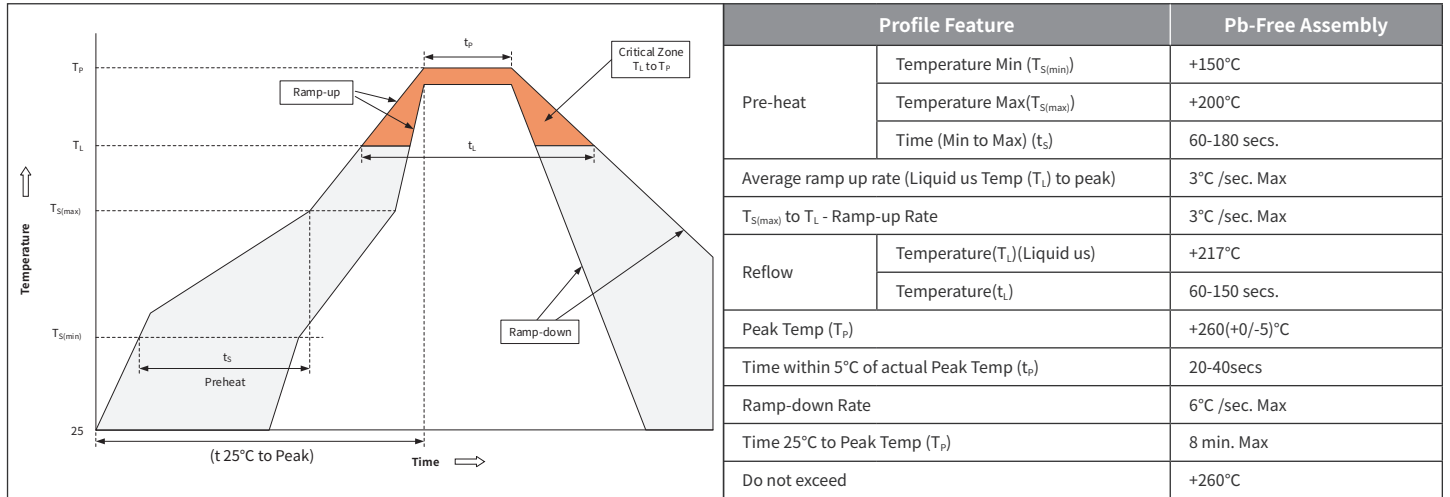
Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



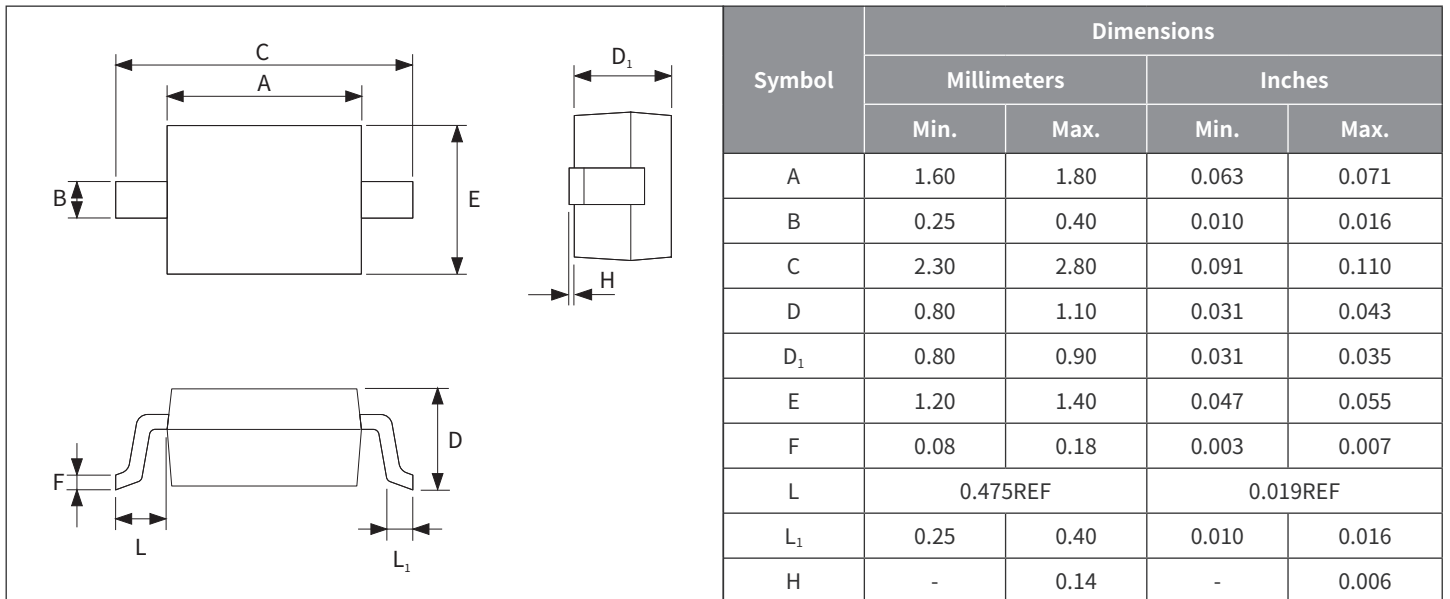
Ordering Information

PREFERED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H12VSD3B	SOD-323	2.55×1.30×0.95	7" REEL	3000

Recommended Soldering Conditions



Package Outline Dimensions (SOD-323)



Suggested Pad Layout

