

SOD-323 Plastic-Encapsulate ESD Protection Diodes

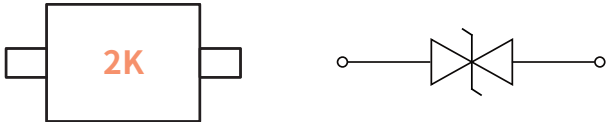
Features

- 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): 10A

Applications

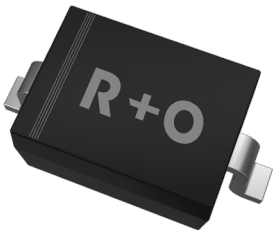
- LED Lighting Modules
- RS232/RS485
- CAN and LIN Bus
- Portable Instrumentation
- General Purpose I/O

Function Diagram



Reverse Working Voltage
18V Max.
Normal capacitance
25pF(Typ.)

SOD-323



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	360	W
I _{PP}	Rated Peak Pulse Current	tp = 8/20 μs	10	A
T _J	Operating JunctionTemperature Range	—	-55 to +150	°C
T _{STG}	Operating JunctionTemperature Range	—	-55 to +150	°C

Electrical Parameter

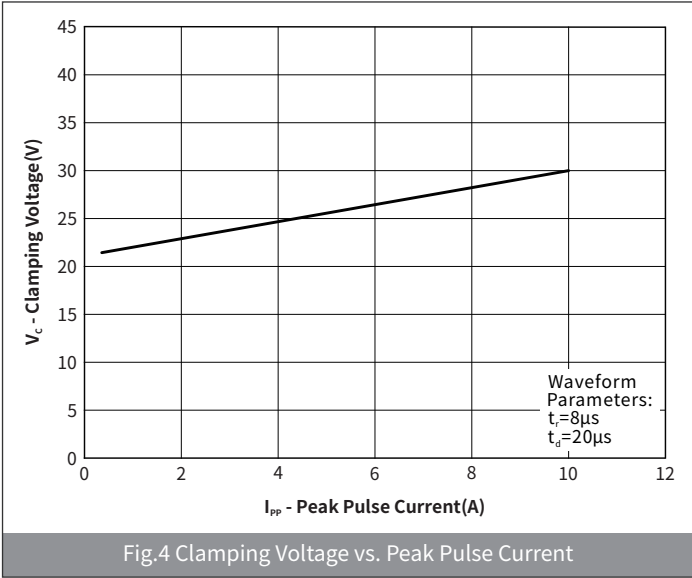
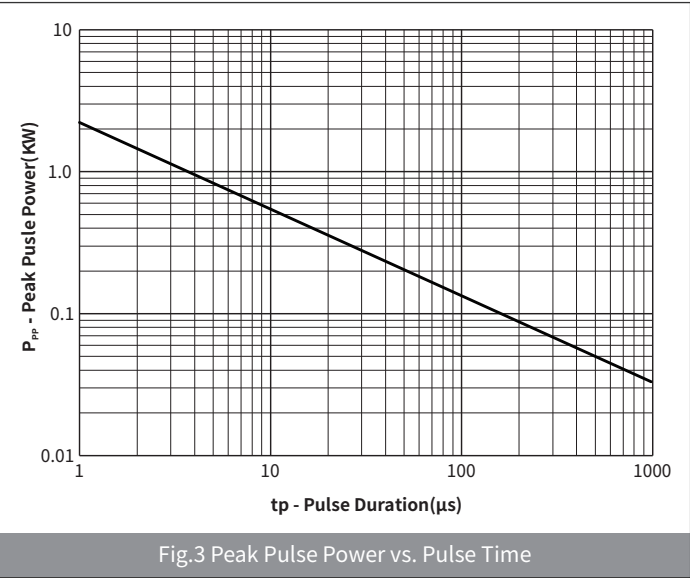
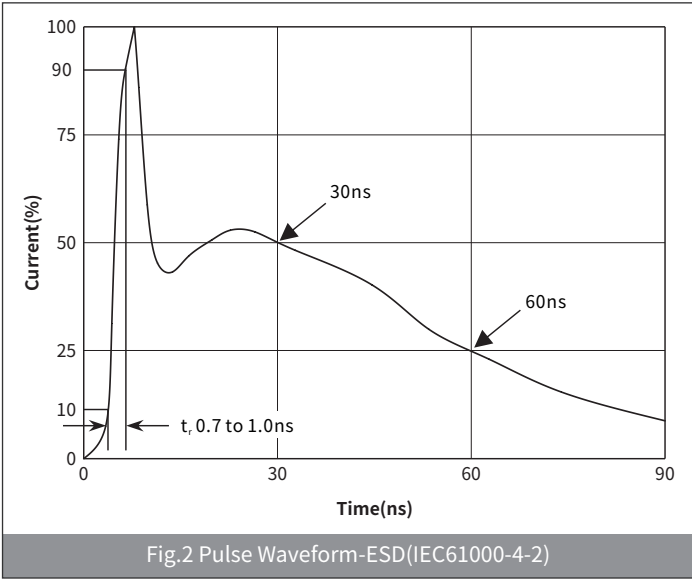
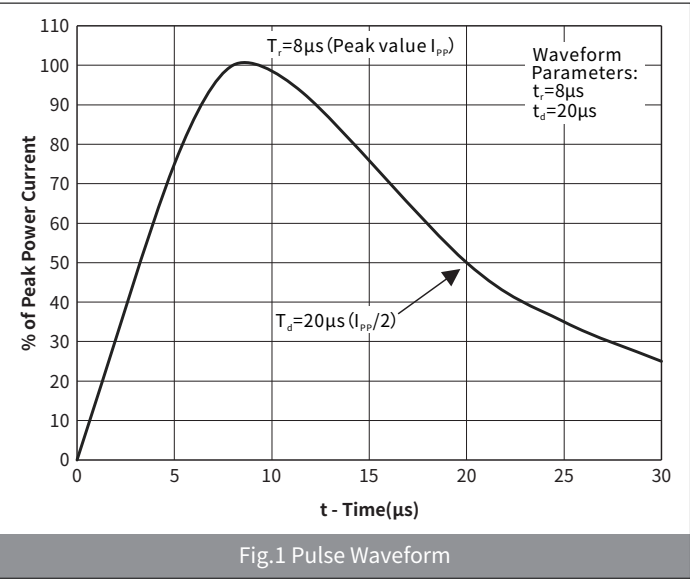
SYMBOL	PARAMETER
V _C	Clamping Voltage @ I _{PP}
V _{BR}	Breakdown Voltage @ I _T
I _{PP}	Peak Pulse Current
I _T	Test Current
I _R	Reverse Leakage Current @ VRWM
V _{RWM}	Peak Reverse Working Voltage
P _{PP}	Peak Pulse Power Dissipation
C _J	Junction Capacitance @ V _R =0V,f=1MHz
I _F	Forward Current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

The graph shows the current-voltage (I-V) characteristics of the diode. The vertical axis is current (I) and the horizontal axis is voltage (V). The curve shows a sharp increase in current at the breakdown voltage (V_{BR}). Key points marked on the graph include: V_C (clamping voltage), V_{BR} (breakdown voltage), V_{RWM} (peak reverse working voltage), I_{PP} (peak pulse current), I_T (test current), I_R (reverse leakage current), and I_F (forward current).

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

PARAMETER	SYMBOL	CONDITION	Min	Typ	Max	UNIT
Peak Reverse Working Voltage	V_{RWM}	$T_a=25^{\circ}C$	—	—	18	V
Breakdown Voltage	V_{BR}	$I_R=1.0mA, T_a=25^{\circ}C$	19.8	—	—	V
Reverse Leakage Current	I_R	$V_R=18V, T_a=25^{\circ}C$	—	—	0.5	μA
Clamping Voltage	V_C	$I_{PP}=10A, t_p=8/20\mu s$	—	33	—	V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$	—	25	—	pF

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



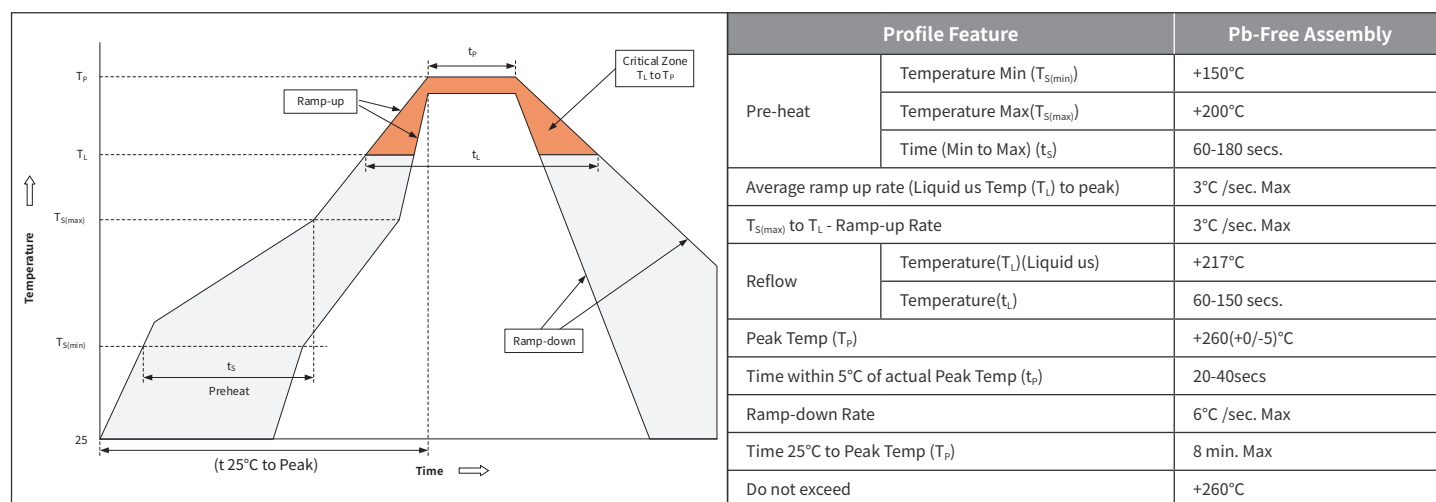
H18VND3BA

Bi-directional 18V Normal Capacitance ESD

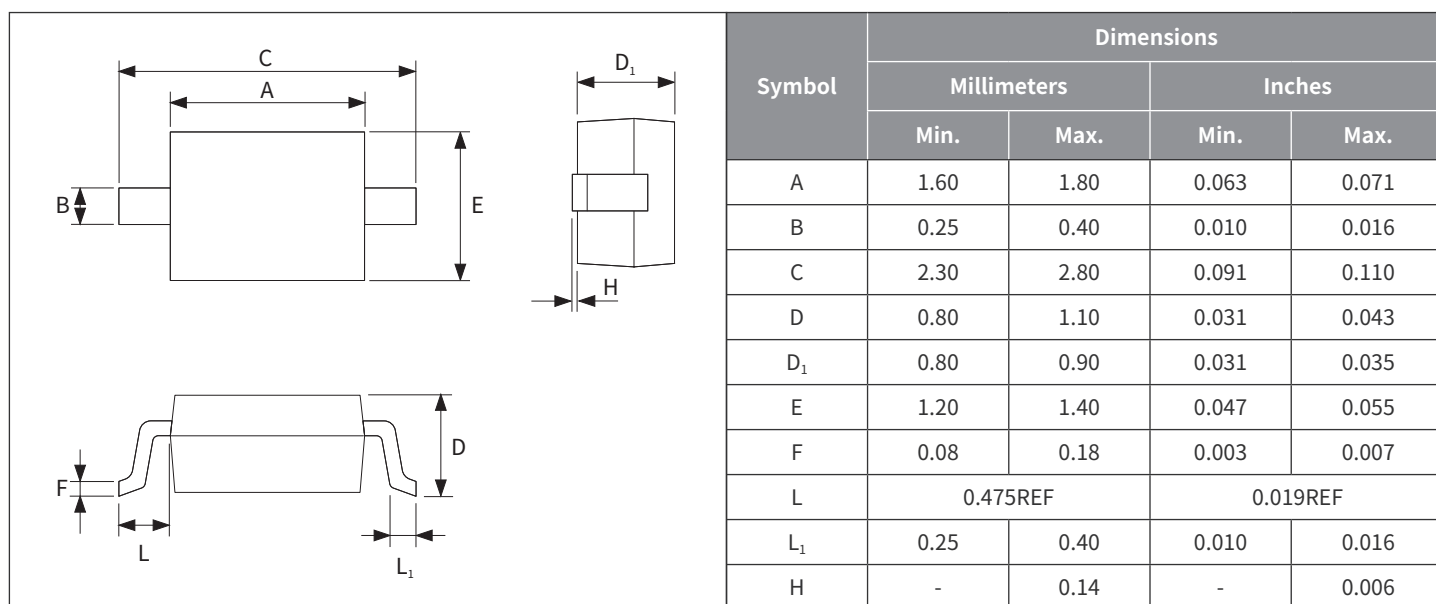
● Ordering Information

PREFERED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H18VND3BA	SOD-323	2.55×1.30×0.95	7" REEL	3000

● Recommended Soldering Conditions



● Package Outline Dimensions (SOD-323)



● Suggested Pad Layout

