

SOD-323 Plastic-Encapsulate ESD Protection Diodes

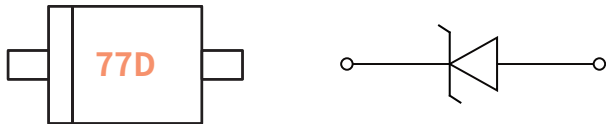
Features

- 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): 130A

Applications

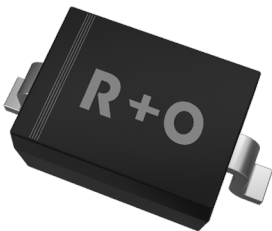
- Mobile Phone, Digital cameras
- Battery Protection
- Power Line Protection
- Peripherals
- Hand Held Portable Applications

Function Diagram



Reverse Working Voltage
7V Max.
High capacitance
500pF(Max.)

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	2340	W
I _{PP}	Rated Peak Pulse Current	tp = 8/20 μs	130	A
T _J	Operating JunctionTemperature Range	—	-55 to +125	°C
T _{STG}	Operating JunctionTemperature Range	—	-55 to +150	°C

Electrical Parameter

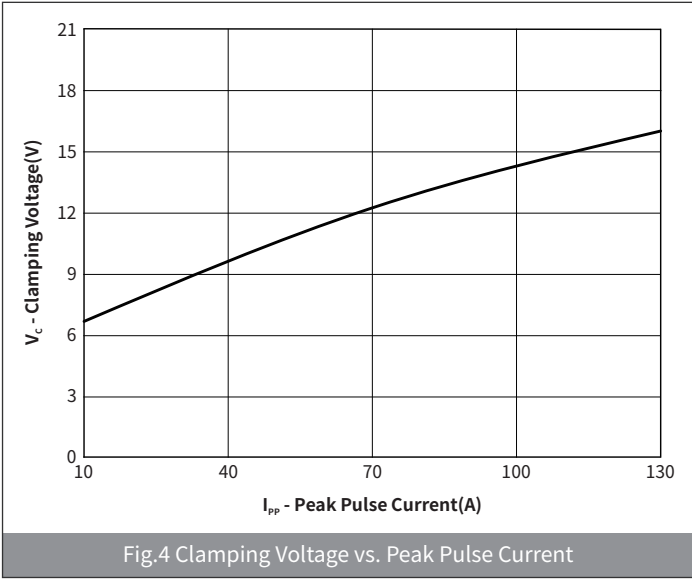
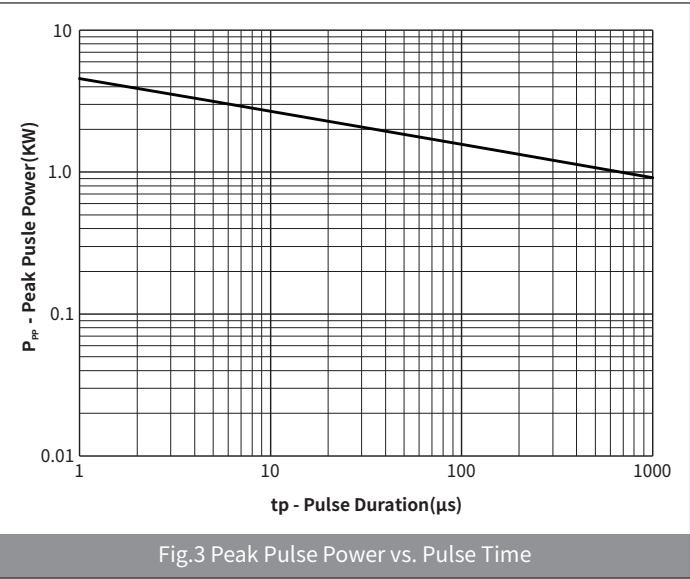
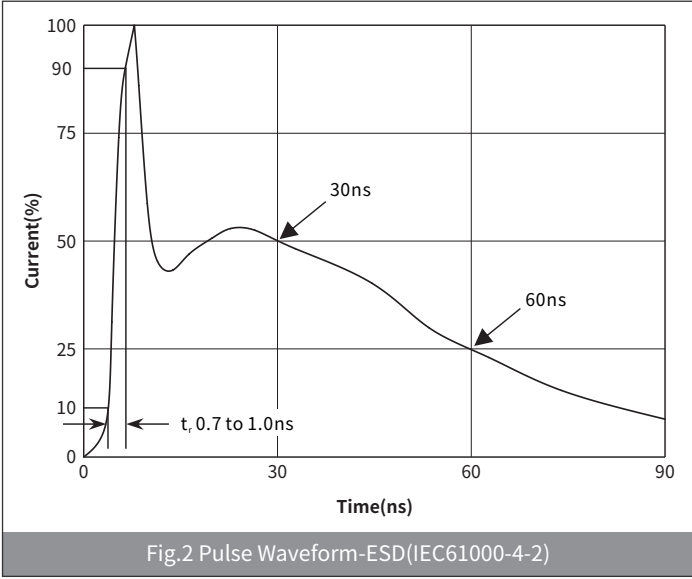
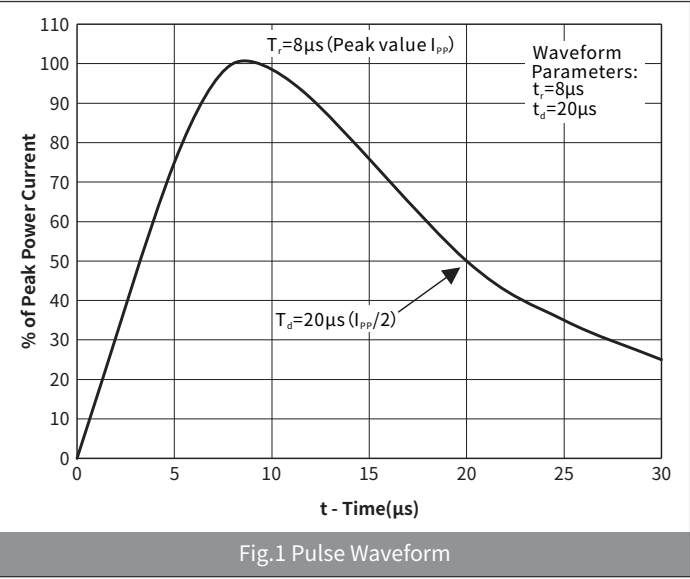
SYMBOL	PARAMETER
V _C	Clamping Voltage @ I _{PP}
V _{BR}	Breakdown Voltage @ I _T
I _{PP}	Peak Pulse Current
I _T	Test Current
I _R	Reverse Leakage Current @ VRWM
V _{RWM}	Peak Reverse Working Voltage
P _{PP}	Peak Pulse Power Dissipation
C _J	Junction Capacitance @ V _R =0V,f=1MHz
I _F	Forward Current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

The graph plots current (I) on the vertical axis against voltage (V) on the horizontal axis. In the third quadrant (reverse bias), the curve shows a sharp increase in current at the breakdown voltage V_{BR}. Key points marked include V_C (clamping voltage), V_{BR} (breakdown voltage), V_{RWM} (peak reverse working voltage), I_R (reverse leakage current), and I_T (test current). In the first quadrant (forward bias), the curve shows a sharp increase in current at the forward voltage V_F. Key points marked include I_F (forward current) and I_{PP} (peak pulse current).

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

PARAMETER	SYMBOL	CONDITION	Min	Typ	Max	UNIT
Peak Reverse Working Voltage	V_{RWM}	$T_a=25^{\circ}C$	—	—	7	V
Breakdown Voltage	V_{BR}	$I_R=1mA, T_a=25^{\circ}C$	7.5	—	9	V
Reverse Leakage Current	I_R	$V_R=7V, T_a=25^{\circ}C$	—	—	1.0	μA
Clamping Voltage	V_C	$I_{PP}=10A, t_p=8/20\mu s$	—	—	9.5	V
		$I_{PP}=130A, t_p=8/20\mu s$	—	—	18	
Junction Capacitance	C_J	$V_R=0V, f=1MHz$	—	—	500	pF

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



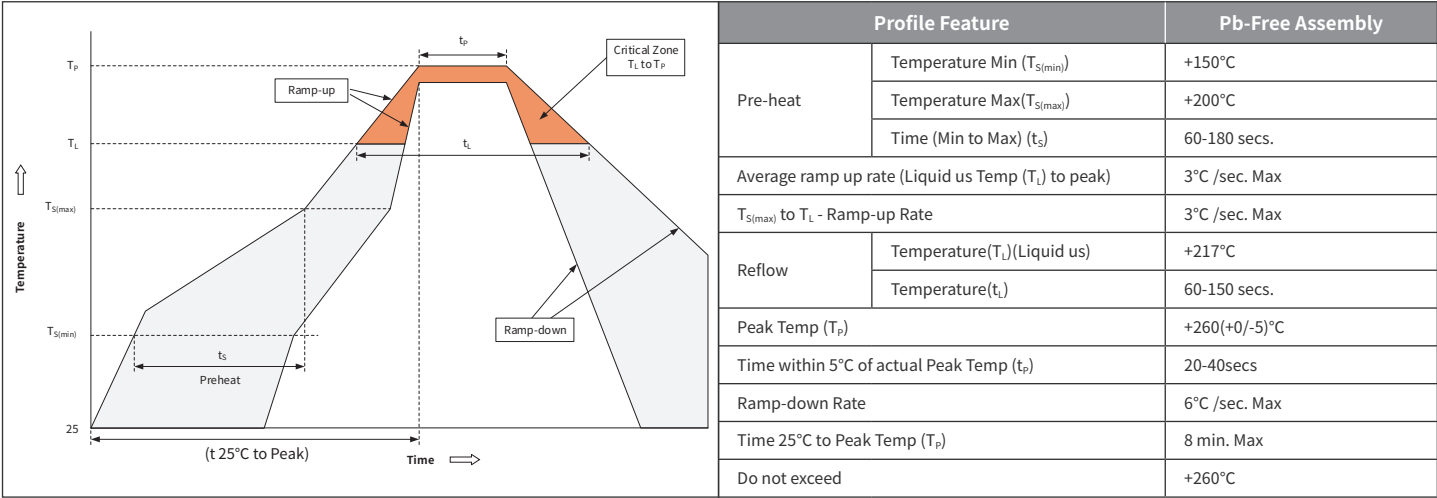
H7VHD3UA

Uni-directional TV High Capacitance ESD

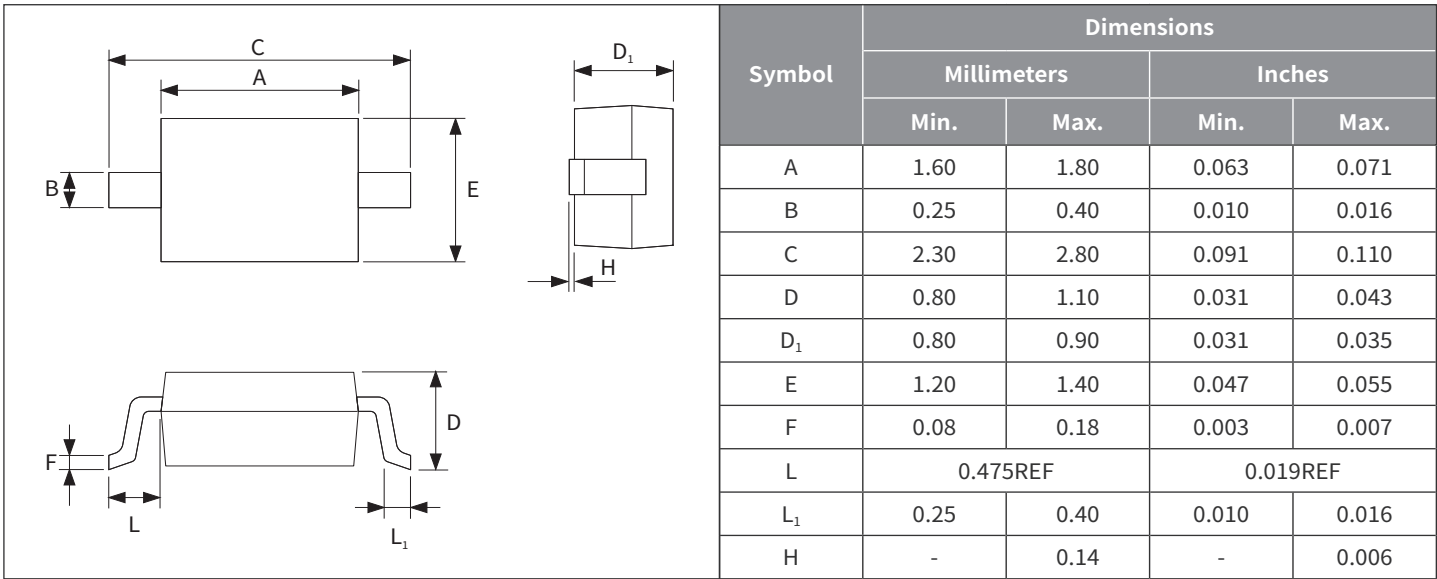
● Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOD-323	R1	0.0048	3000	45000	180000	7"

● Recommended Soldering Conditions



● Package Outline Dimensions (SOD-323)



● Suggested Pad Layout

