

SOD-523 Plastic-Encapsulate ESD Protection Diodes

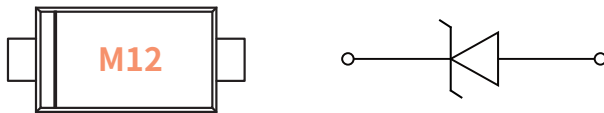
● Features

- Low leakage current
- SOD-523 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): 15A

● Applications

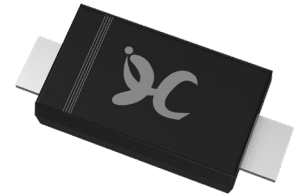
- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebook computers
- Notebooks and Handhelds
- Peripherals, Audio Players
- Industrial Equipment

● Function Diagram



Reverse Working Voltage
12V Max.
Normal capacitance
90pF(Max.)

SOD-523

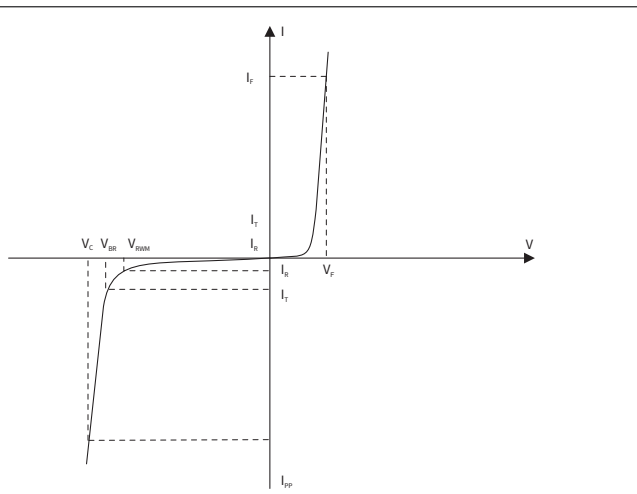


● Maximum Ratings (Ta=25°C Unless otherwise specified)

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	15	A
T_{J}	Operating JunctionTemperature Range	—	-55 to +125	°C
T_{STG}	Operating JunctionTemperature Range	—	-55 to +150	°C

● Electrical Parameter

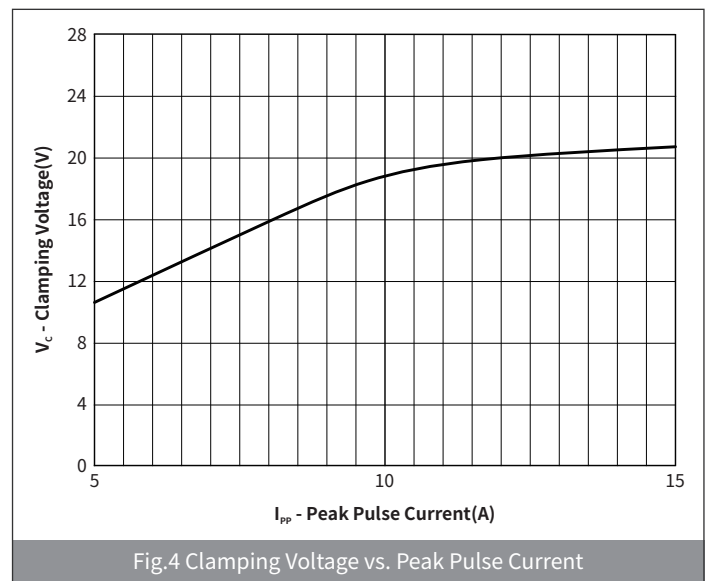
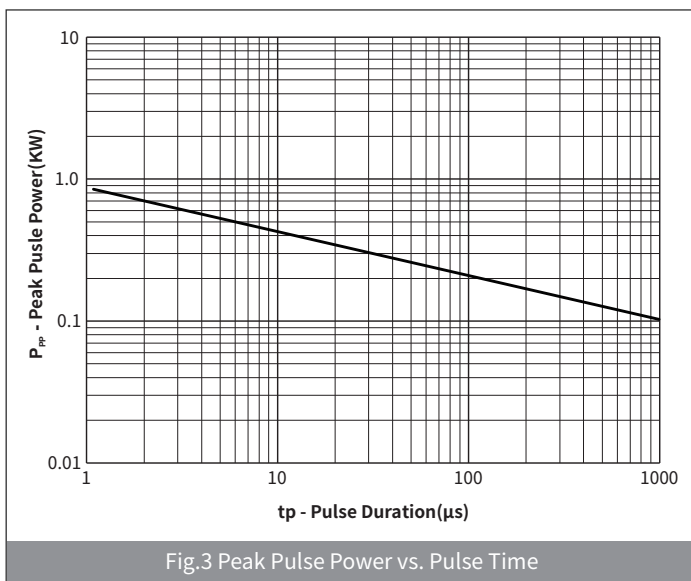
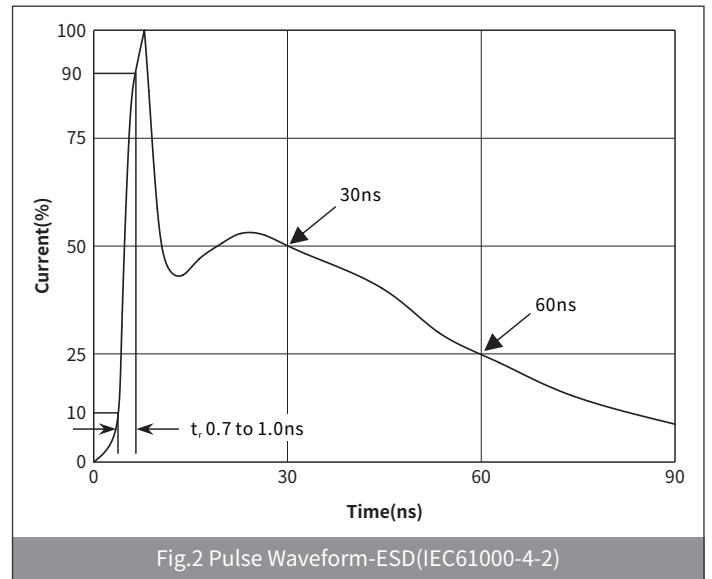
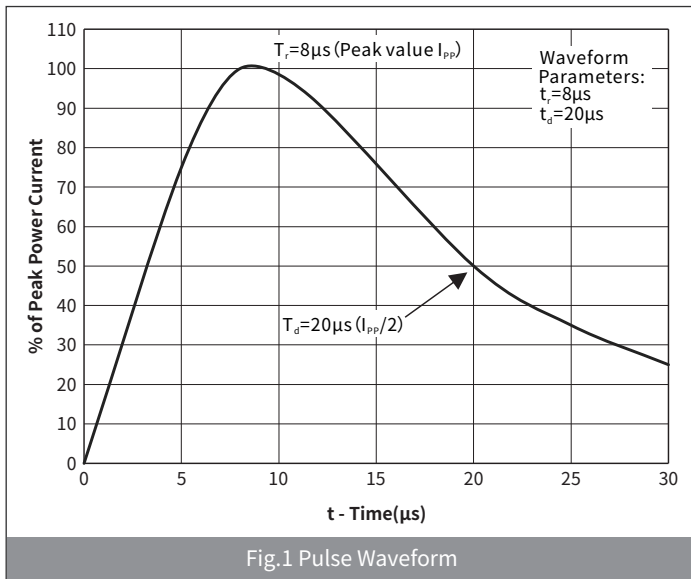
SYMBOL	PARAMETER
V_{C}	Clamping Voltage @ I_{PP}
V_{BR}	Breakdown Voltage @ I_{T}
I_{PP}	Peak Pulse Current
I_{T}	Test Current
I_{R}	Reverse Leakage Current @ VRWM
V_{RWM}	Peak Reverse Working Voltage
P_{PP}	Peak Pulse Power Dissipation
C_{J}	Junction Capacitance @ $V_{\text{R}}=0\text{V}, f=1\text{MHz}$
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}	$I_R=1\text{mA}, T_a=25^\circ\text{C}$	13.2	—	16	V
Reverse Leakage Current	I_R	$V_R=12\text{V}, T_a=25^\circ\text{C}$	—	—	0.1	μA
Clamping Voltage	V_C	$I_{PP}=5\text{A}, t_p=8/20\mu\text{s}$	—	—	16	V
		$I_{PP}=15\text{A}, t_p=8/20\mu\text{s}$	—	—	24	
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$	—	—	90	pF

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



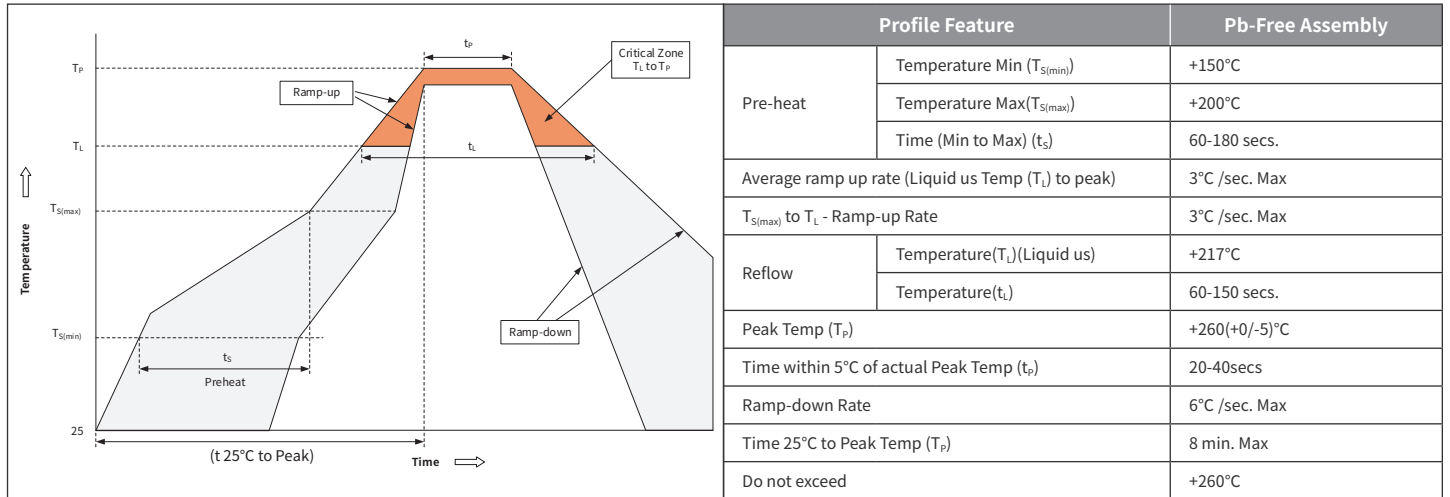
H12VND5U

Uni-directional 12V Normal Capacitance ESD

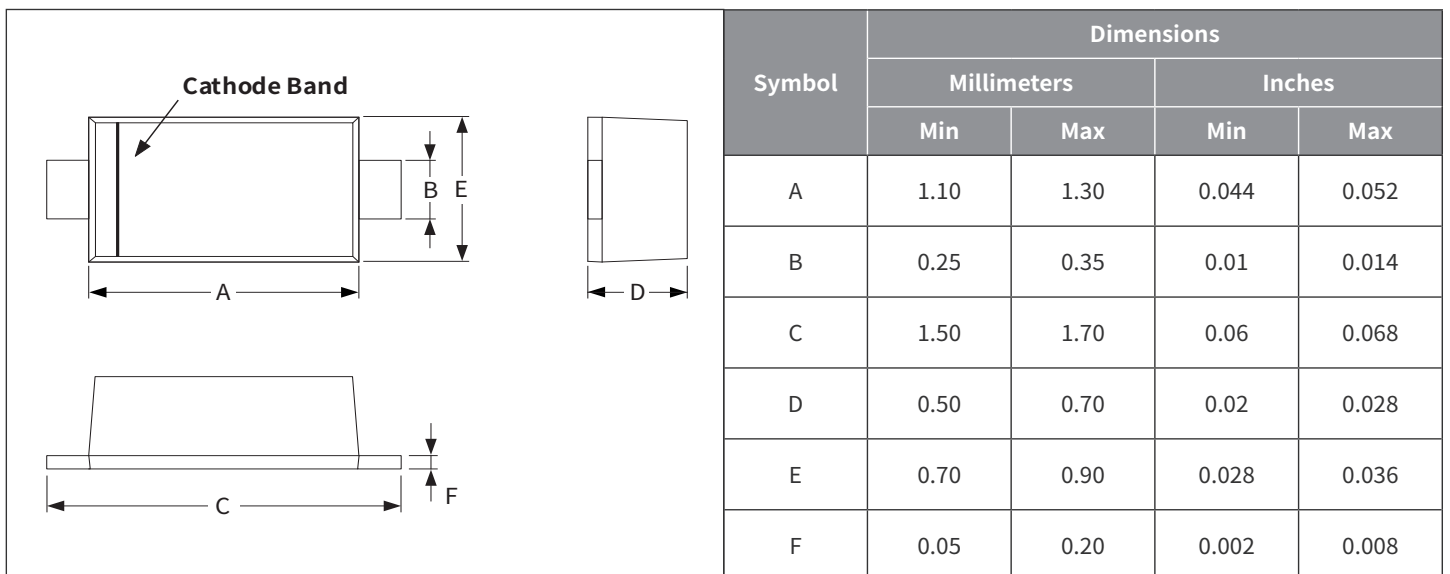
Ordering Information

PREFERRED P/N	PACKAGE CODE	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H15VND5U	R1	SOD-523	0.30×0.80×0.115	7" REEL	3000
	R1H	SOD-523	0.30×0.80×0.115	7" REEL	8000

Recommended Soldering Conditions



Package Outline Dimensions (SOD-523)



Suggested Pad Layout

