

SOD-523 Plastic-Encapsulate ESD Protection Diodes

● Features

- Low leakage current
- SOD-523 surface mount package
- IEC 61000-4-2 (ESD Air): $\pm 25\text{kV}$
- IEC 61000-4-2 (ESD Contact): $\pm 20\text{kV}$
- IEC 61000-4-5 (Lightning 8/20 μs): 5A

● Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation, Digital Cameras
- Peripherals, Audio Players
- Industrial Equipment

● Function Diagram



Reverse Working Voltage
5V Max.
Ultra Small capacitance
0.8pF(Max.)

SOD-523

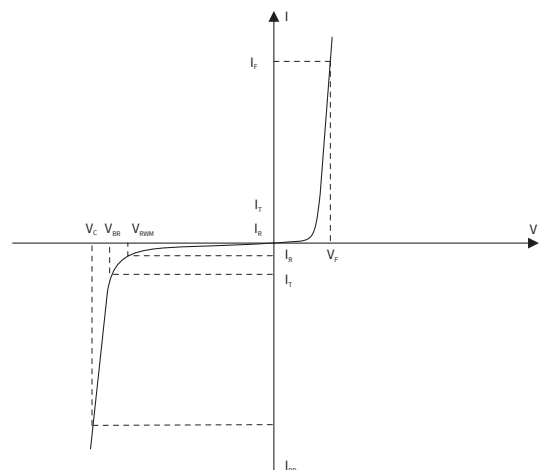


● Maximum Ratings (Ta=25°C Unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{ESD}	Electrostatic Discharge Voltage	ESD per IEC 61000-4-2(Air)	± 25	KV
		ESD per IEC 61000-4-2(Contact)	± 20	KV
P _{PP}	Peak Pulse Power	tp = 8/20 μs	75	W
I _{PP}	Rated Peak Pulse Current	tp = 8/20 μs	5.0	A
T _J	Operating Junction Temperature Range	—	-55 to +125	°C
T _{STG}	Operating Junction Temperature Range	—	-55 to +150	°C

● Electrical Parameter

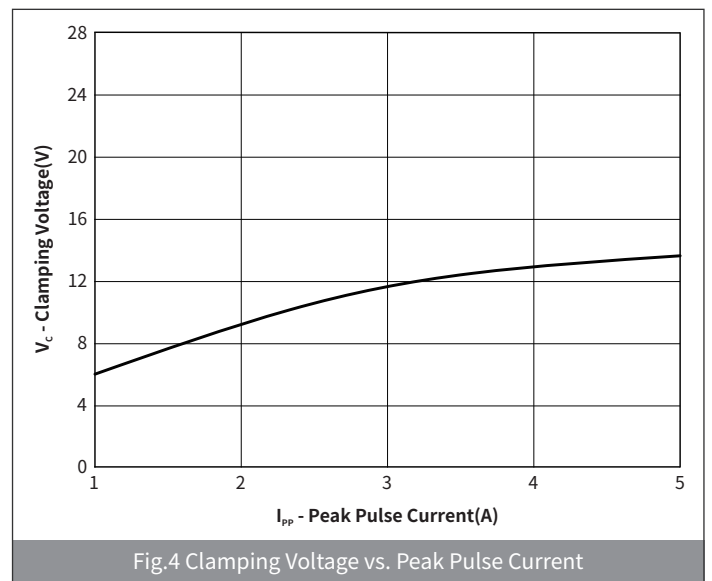
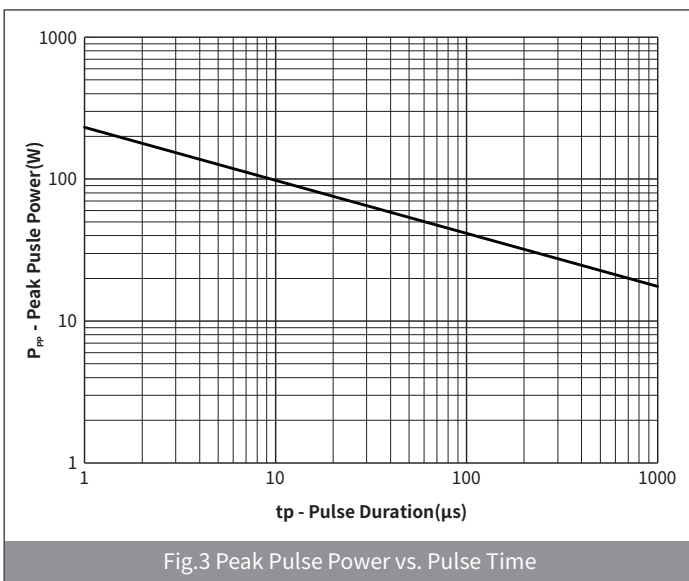
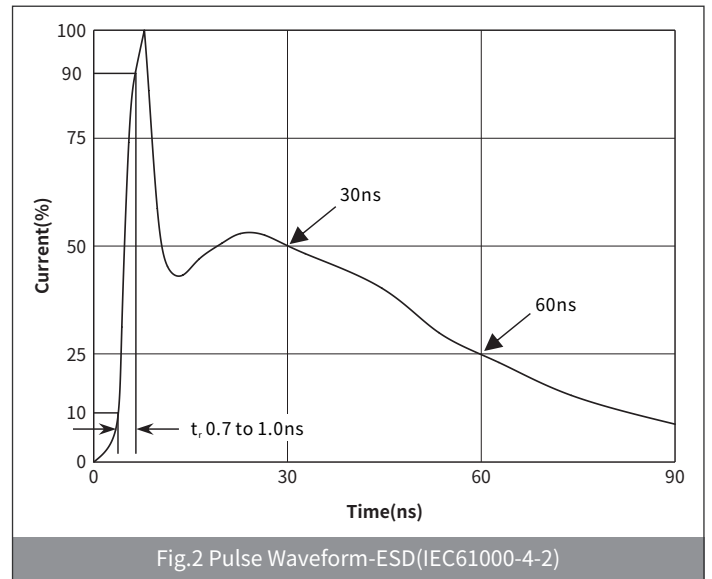
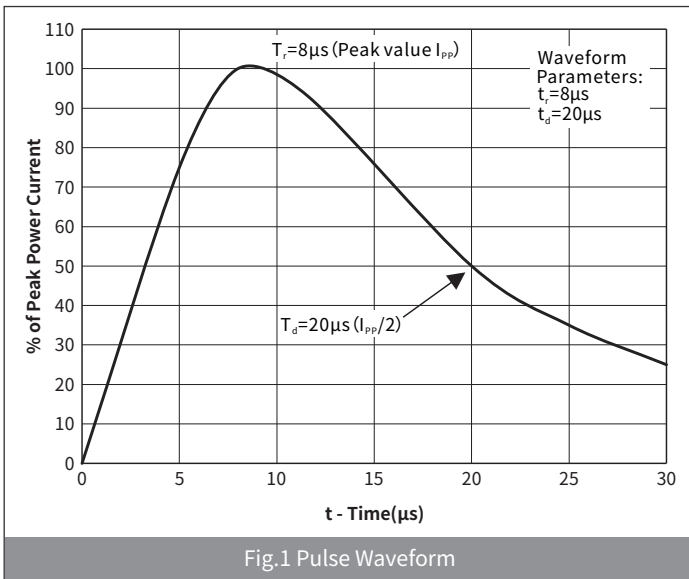
SYMBOL	PARAMETER
V _C	Clamping Voltage @ I _{PP}
V _{BR}	Breakdown Voltage @ I _T
I _{PP}	Peak Pulse Current
I _T	Test Current
I _R	Reverse Leakage Current @ VRWM
V _{RWM}	Peak Reverse Working Voltage
P _{PP}	Peak Pulse Power Dissipation
C _J	Junction Capacitance @ V _R =0V, f=1MHz
I _F	Forward Current
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}	$T_a=25^\circ\text{C}$	—	—	5.0	V
Breakdown Voltage	V_{BR}	$I_R=1\text{mA}, T_a=25^\circ\text{C}$	6.0	—	9.0	V
Reverse Leakage Current	I_R	$V_R=5\text{V}, T_a=25^\circ\text{C}$	—	—	0.2	μA
Clamping Voltage	V_C	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$	—	—	10	V
		$I_{PP}=5\text{A}, t_p=8/20\mu\text{s}$	—	—	15	
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$	—	0.6	0.8	pF

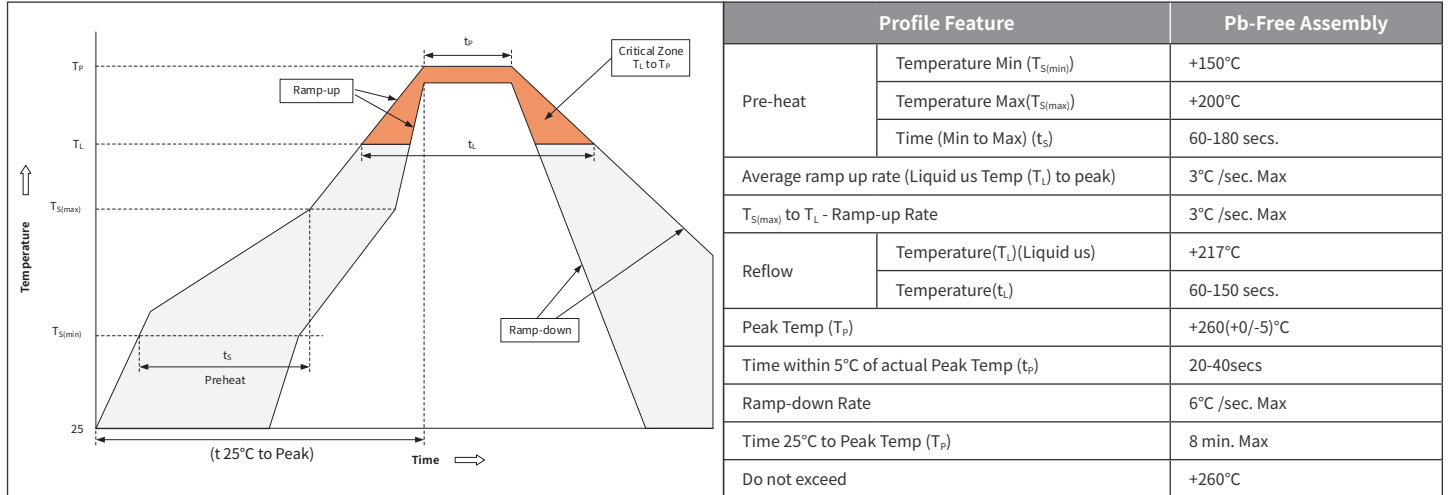
● Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



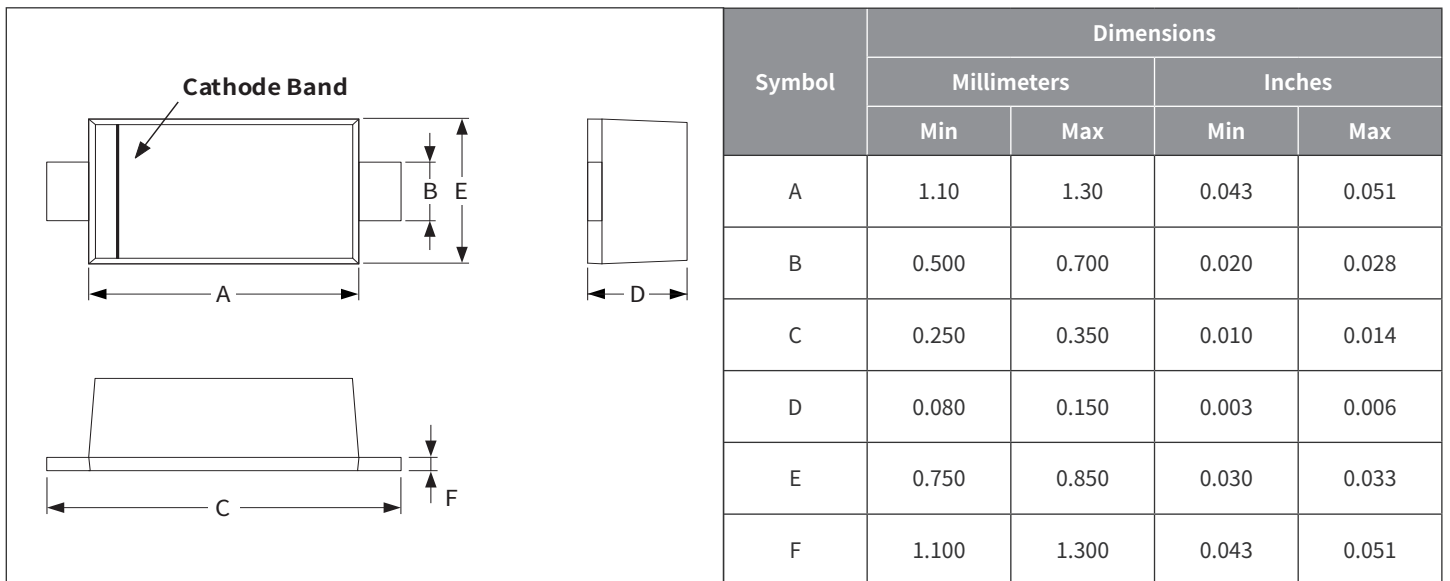
Ordering Information

PREFERRED P/N	PACKAGE CODE	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H5VLD5BA	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

