

SOD-523 Plastic-Encapsulate ESD Protection Diodes

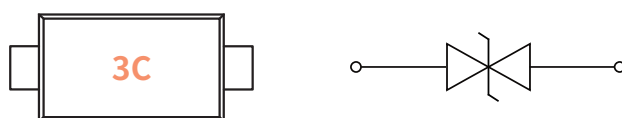
Features

- 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): 8A

Applications

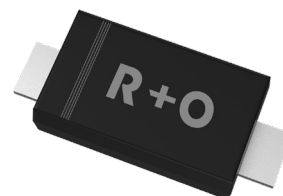
- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation, Digital Cameras
- Peripherals, Audio Players, Industrial Equipment

Function Diagram



Reverse Working Voltage
3.3V Max.
Low Capacitance
12.5pF(Typ.)

SOD-523

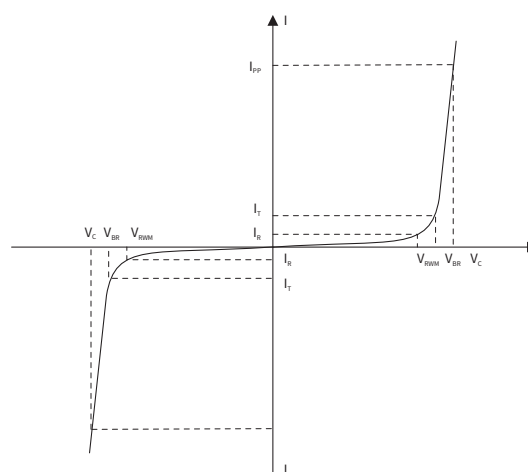


Maximum Ratings (Ta=25°C Unless otherwise specified)

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	$t_p = 8/20 \mu\text{s}$	100	W
I_{PP}	Rated Peak Pulse Current	$t_p = 8/20 \mu\text{s}$	8	A
T_J	Operating Junction Temperature Range	—	-55 to +125	°C
T_{STG}	Operating Junction Temperature Range	—	-55 to +150	°C

Electrical Parameter

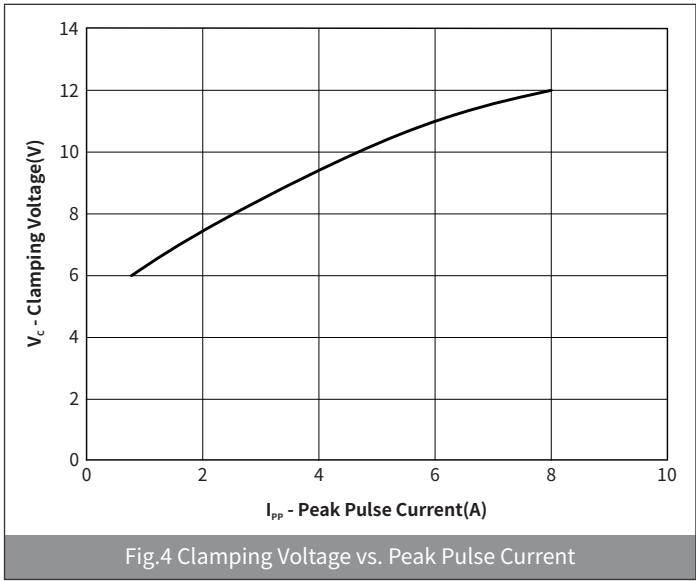
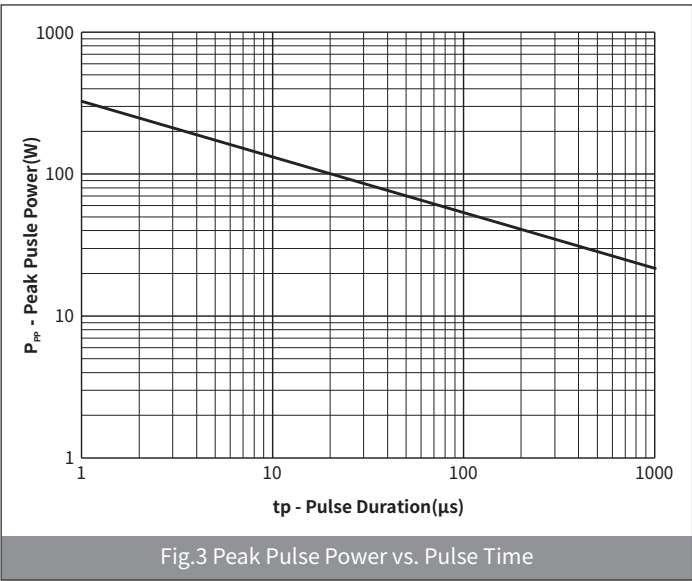
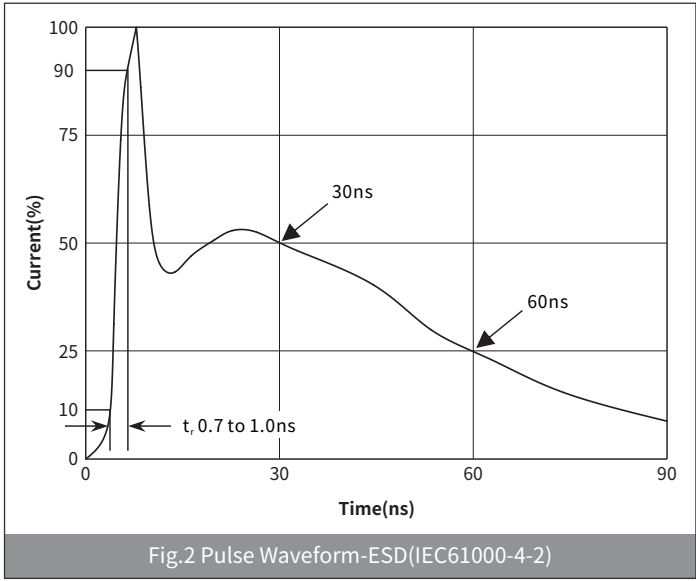
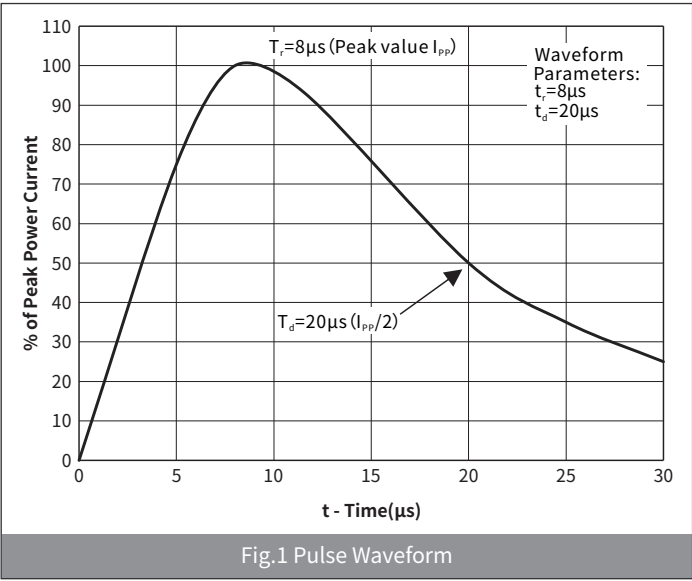
SYMBOL	PARAMETER
V_C	Clamping Voltage @ I_{PP}
V_{BR}	Breakdown Voltage @ I_T
I_{PP}	Peak Pulse Current
I_T	Test Current
I_R	Reverse Leakage Current @ V_{RWM}
V_{RWM}	Peak Reverse Working Voltage
P_{PP}	Peak Pulse Power Dissipation
C_J	Junction Capacitance @ $V_R=0\text{V}, f=1\text{MHz}$
I_F	Forward 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}	$T_a=25^{\circ}C$	—	—	3.3	V
Breakdown Voltage	V_{BR}	$I_R=1mA, T_a=25^{\circ}C$	3.5	—	6.5	V
Reverse Leakage Current	I_R	$V_R=3.3V, T_a=25^{\circ}C$	—	—	0.2	μA
Clamping Voltage	V_C	$I_{PP}=1.0A, t_p=8/20\mu s$	—	—	6	V
		$I_{PP}=8A, t_p=8/20\mu s$	—	—	12	
Junction Capacitance	C_J	$V_R=0V, f=1MHz$	—	12.5	25	pF

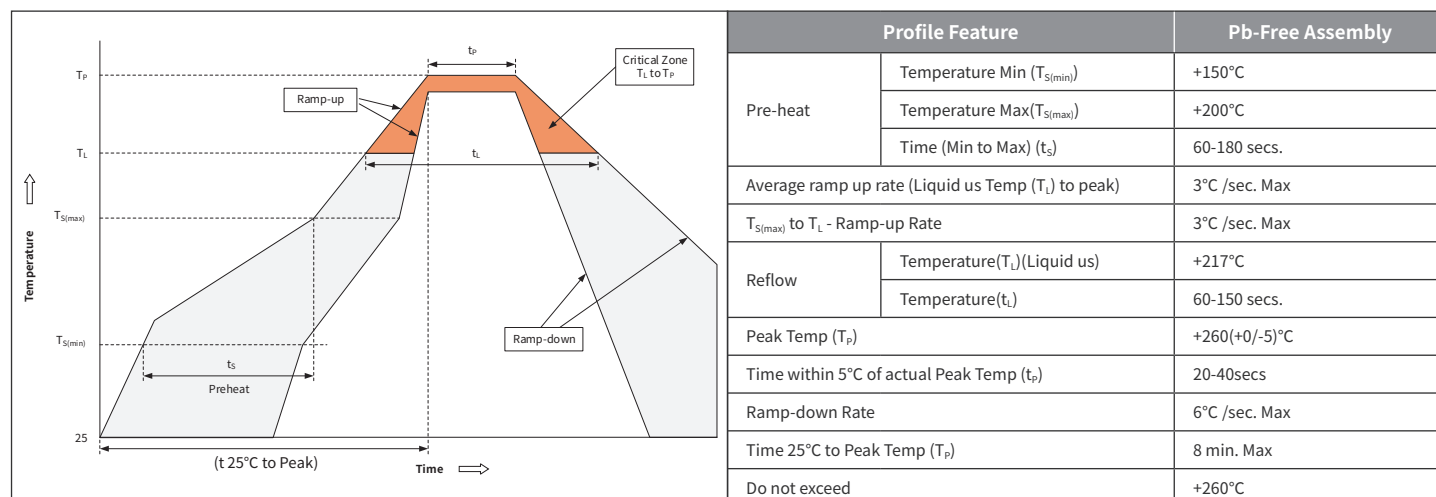
● **Ratings And Characteristics Curves** (Ta=25°C Unless otherwise specified)



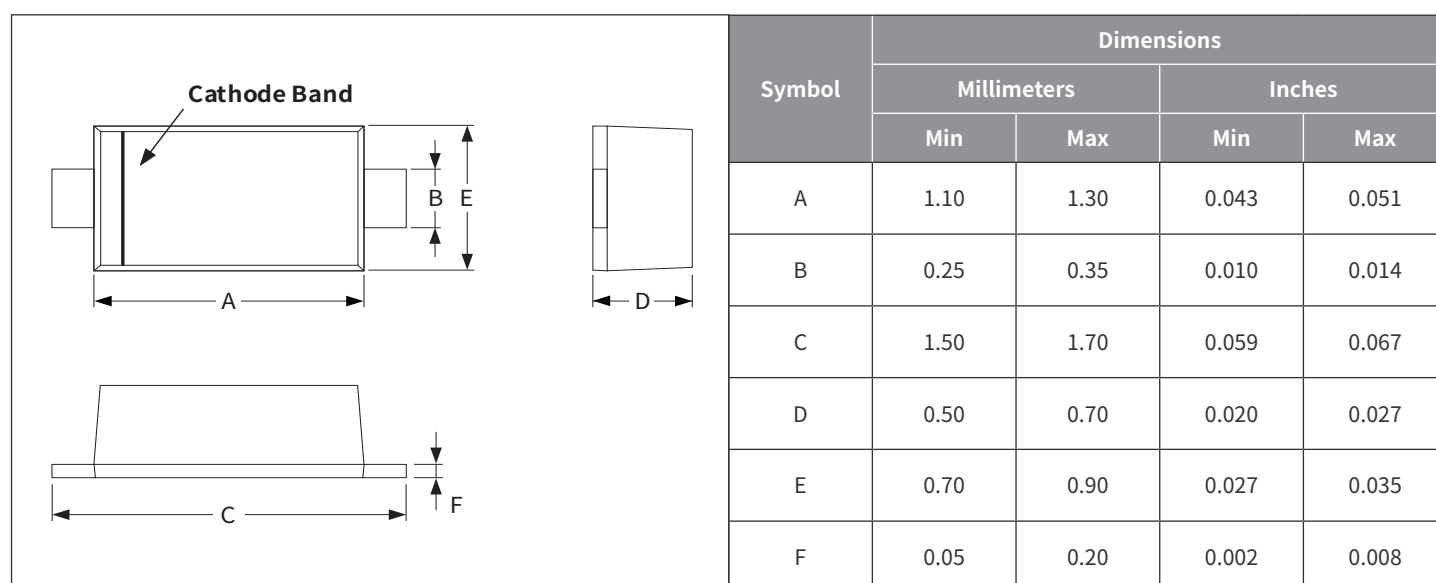
Ordering Information

PREFERRED P/N	PACKAGE CODE	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H3V3LD5B	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

