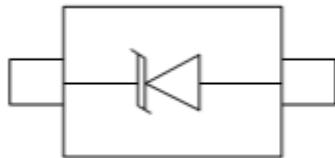


ESD Protection Diode

Features

- Protects one power line
- Ultra low leakage: nA level
- Low operating voltage: 7V
- Low clamping voltage
- 2 pin leadless package
- Complies with following standards:
IEC 61000-4-2 (ESD) immunity test
 Air discharge: $\pm 30\text{kV}$
 Contact discharge: $\pm 30\text{kV}$
IEC6100045 (Lightning) 25A (8/20 μs)
- RoHS Compliant
- Package: SOD-523
- AEC-Q101 qualified (Automotive grade with suffix "Q.")
- Expsemi electronics

Circuit Diagram



Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation
- Digital Cameras
- Peripherals
- Audio Players
- Keypads, Side Keys, LCD Displays

Ordering Information

Part Number	Packaging	Reel Size
EPD0710S5	3000/Tape & Reel	7 inch

Package Outline



Transparent top view

N7:Device Marking Code

Bar denotes cathode

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise specified)

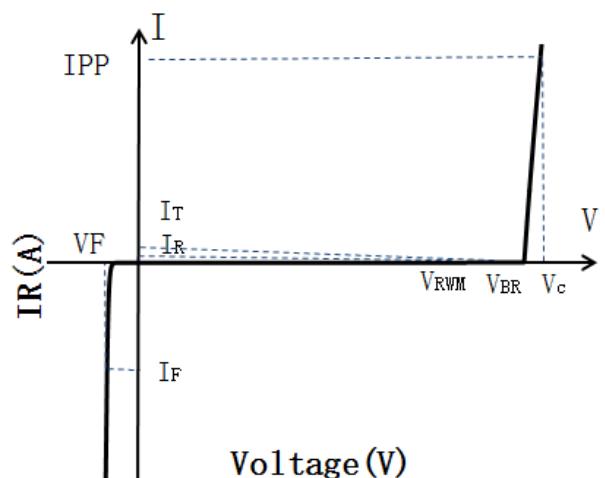
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	450	W
Peak Pulse Current (8/20μs)	IPP	25	A
ESD per IEC 61000-4-2 (Air)	VESD	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	TJ	-40 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

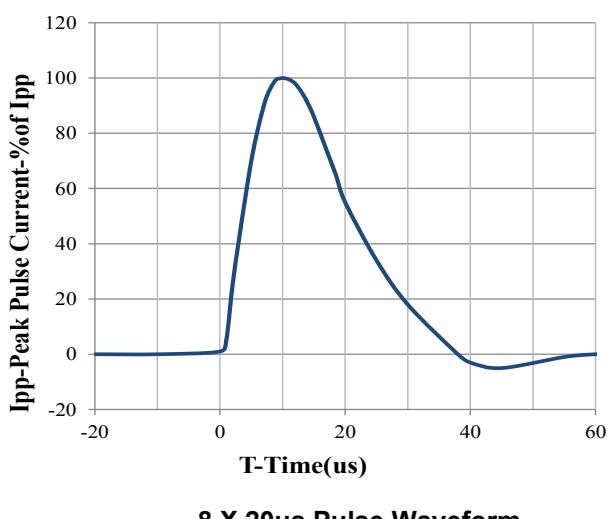
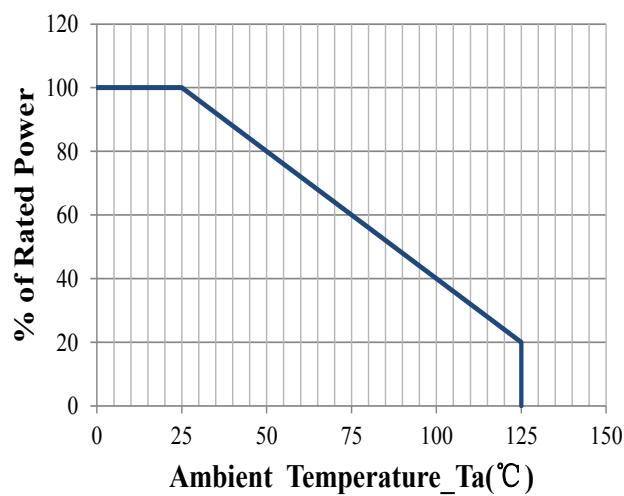
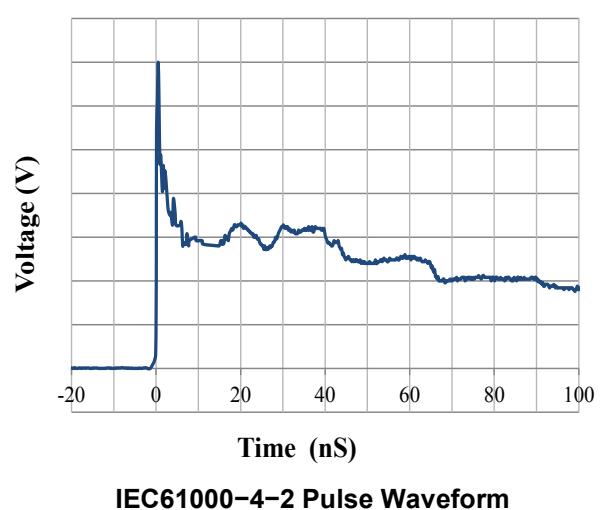
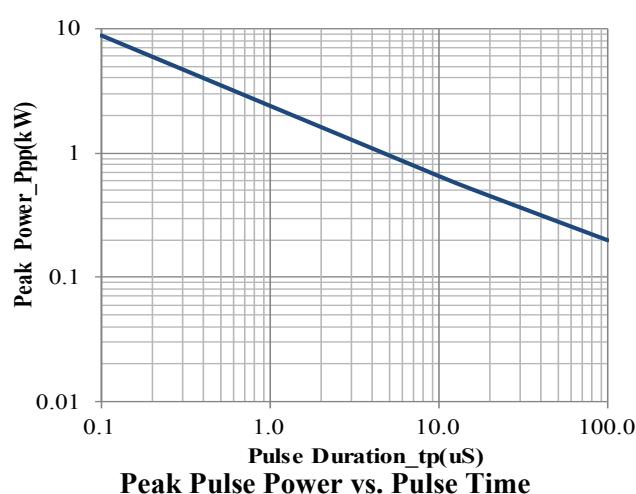
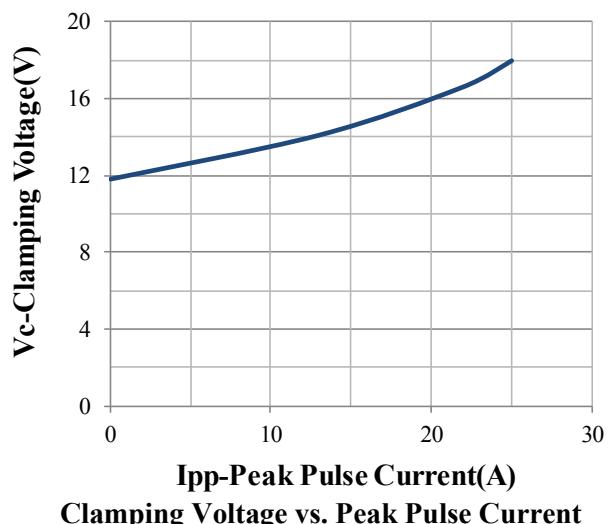
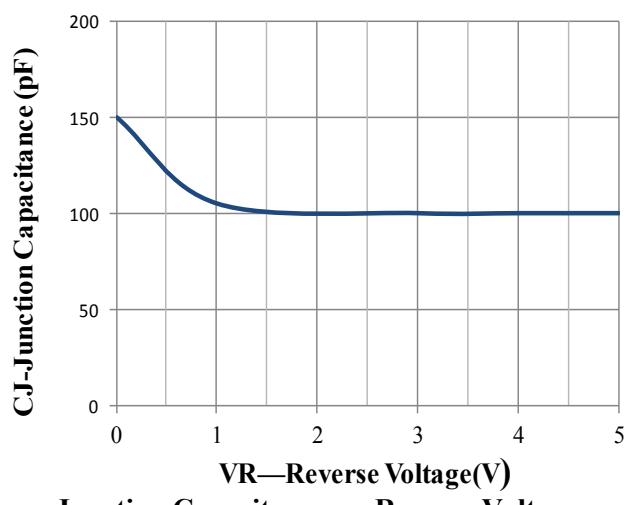
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V _{RWM}				7.0	V
Breakdown Voltage	V _{BR}	I _T = 1mA	8.0	9.5	10.5	V
Forward Voltage	V _F	I _F = 10mA		0.7	1.2	V
Reverse Leakage Current	I _R	V _{RWM} = 7.0V			0.5	μA
Clamping Voltage	V _C	I _{PP} = 13A (8 x 20μs pulse)		13		V
Clamping Voltage	V _C	I _{PP} = 25A (8 x 20μs pulse)		16	19	V
Junction Capacitance	C _J	V _R = 0V, f = 1MHz		150	200	pF

Portion Electronics Parameter

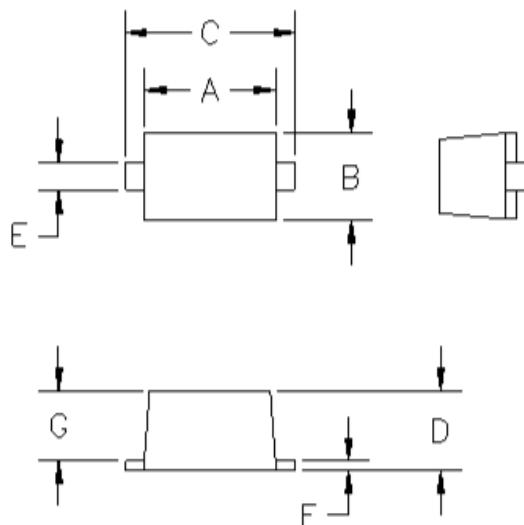
Symbol	Parameter
I _T	Test Current
I _{PP}	Maximum Reverse Peak Pulse Current
V _c	Clamping Voltage @I _c



Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

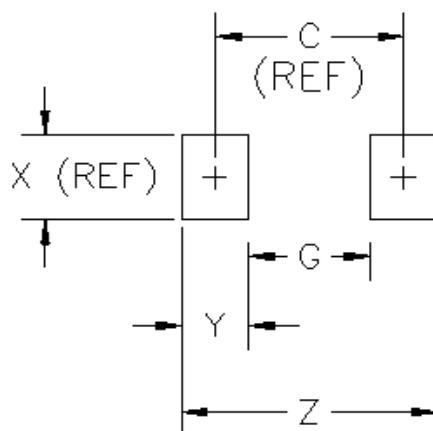


SOD-523 Package Outline Drawing



DIM ^N	DIMENSIONS				NOTE	
	INCHES		MM			
	. MIN	MAX	MIN	MAX		
A	.043	.051	1.10	1.30	—	
B	.028	.035	0.70	0.90	—	
C	.059	.067	1.50	1.70	—	
D	.020	.028	0.50	0.70	—	
E	.010	.014	0.25	0.35	—	
F	.004	.008	0.10	0.20	—	
G	.020	.028	0.50	0.70	—	

Suggested Land Pattern



DIM ^N	DIMENSIONS				NOTE	
	INCHES		MM			
	MIN	MAX	MIN	MAX		
C	—	.067	—	1.70	REF	
G	—	.043	—	1.10	—	
X	—	.031	—	0.80	REF	
Y	—	.024	—	0.60	—	
Z	—	.091	--	2.30	—	