

ESDLC5V0D8B

Features

- Ultrasmall package: 1.0x0.6x0.5mm
- Ultralow leakage: nA level
- Low operating voltage: 5V
- Bidirectional configurations
- 2-pin leadless package
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 25\text{kV}$
 - Contact discharge: $\pm 20\text{kV}$
 - IEC61000-4-5 (Lightning) 3.5A (8/20 μs)
- RoHS Compliant

Description

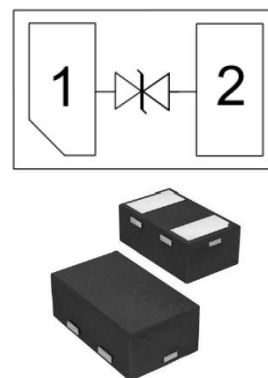
The ESDLC5V0D8B protects sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD) and other voltage induced transient events. They feature large cross-sectional area junctions for conducting high transient currents, offer desirable electrical characteristics for board level protection, such as fast response

time, low operating voltage. It gives designer the flexibility to protect one bi-directional line in applications where arrays are not practical.

Applications

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

Circuit Diagram



Absolute Maximum Ratings

Tamb=25°C unless otherwise specified

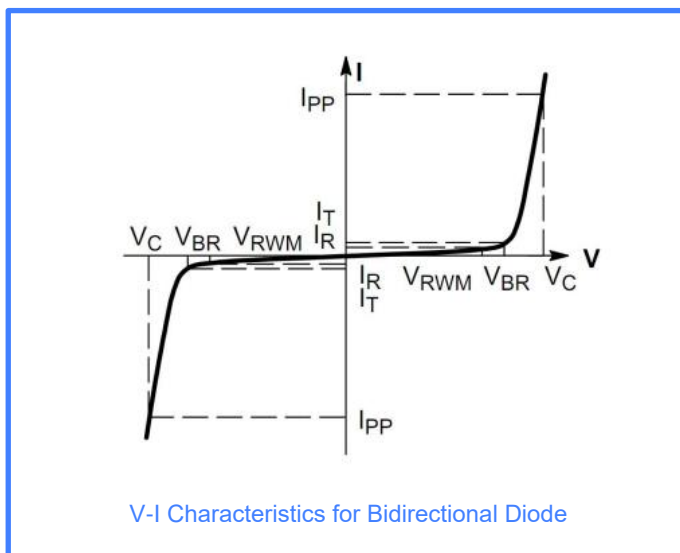
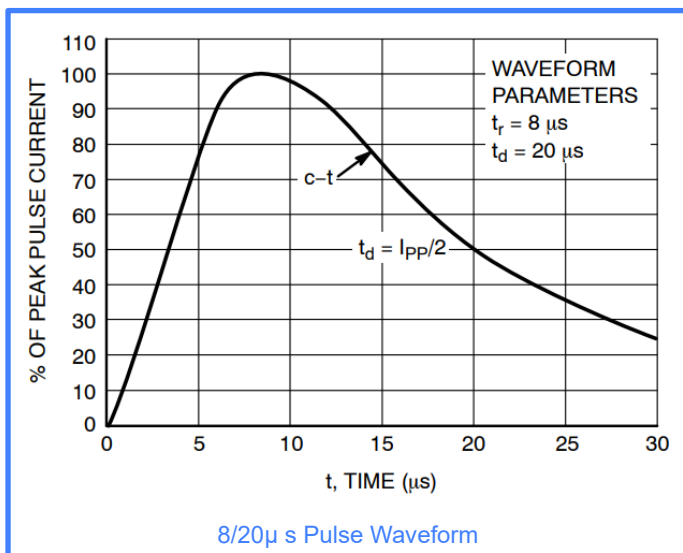
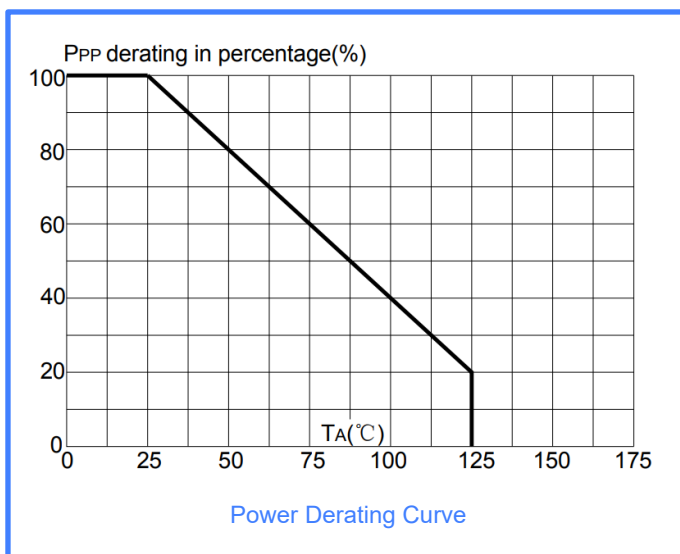
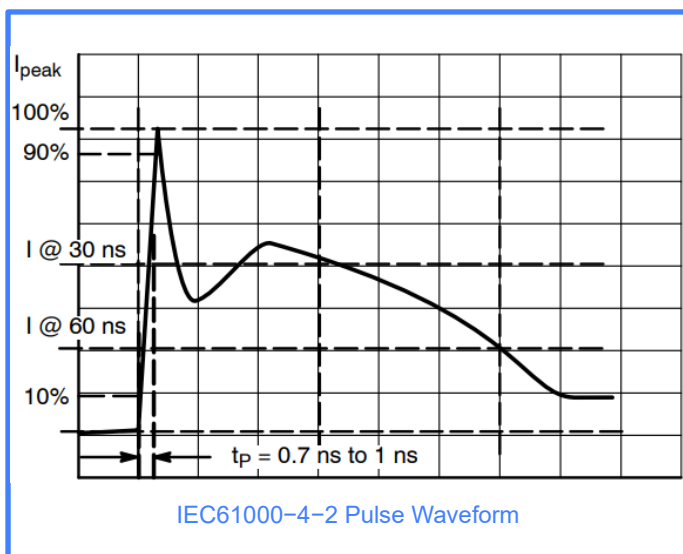
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	40	W
Maximum Reverse Peak Pulse Current	I _{PP} *1	3.5	A
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 25	KV
ESD per IEC 61000-4-2 (Contact)		± 20	
Storage Temperature Range	T _{STJ}	-55 to +150	°C
Operating Temperature Range	T _J	-55 to +125	°C

Electrical Characteristics

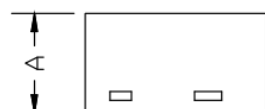
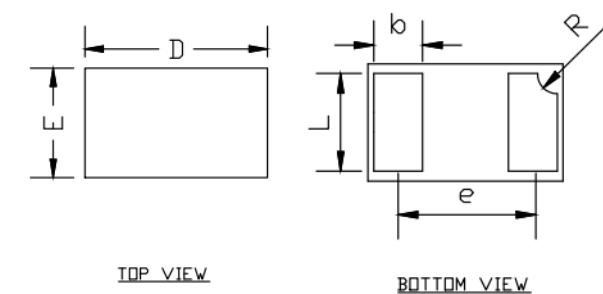
TA=25°C unless otherwise specified

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V _{RWM}	Reverse Working Peak Voltage	-			5	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA	5.6		9.5	V
I _R	Reverse Current	V _{RWM} = 5V			0.1	μA
V _C	Clamping Voltage	I _{PP} =3.5A, t _P =8/20 μs			13	V
C _D	Diode Capacitance	VR = 0V, f = 1MHz		3.5	4.0	pF

Characteristic Curves



DFN1006-2 Package Outline & Dimensions



SYM	DIMENSIONS		
	MILLIMETERS		
	MIN	NOM	MAX
A	0.40	-	0.50
D	0.95	1.00	1.05
E	0.55	0.60	0.65
b	0.20	0.25	0.30
L	0.45	0.50	0.55
e	0.675		
R	0.07	0.10	0.13

Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.