ESD36VD8B

Features

- Ultra small package: 1.0x0.6x0.5mm
- Ultra low leakage: nA level
- Low operating voltage: 36V
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    Air discharge: ±25kV
    Contact discharge: ±20kV
  - IEC61000-4-5 (Lightning) 6A (8/20μs)
- RoHS Compliant

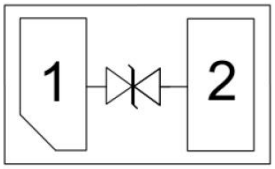
Description

The ESD36VD8B in a DFN1006-2 package and will protect bidirectional line. These devices are designed to replace multilayer varistors (MLVs) in portable applications such as cell phones, notebook computers, and PDA's. They offer superior electrical characteristics such as lower clamping voltage and no device degradation when compared to MLVs, The ESD36VD8B are designed to protect sensitive semiconductor components from damage or upset due to electrostatic discharge (ESD),and other voltage induced transient events.

Applications

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

Circuit Diagram



Absolute Maximum Ratings

Tamb=25°C unless otherwise specified

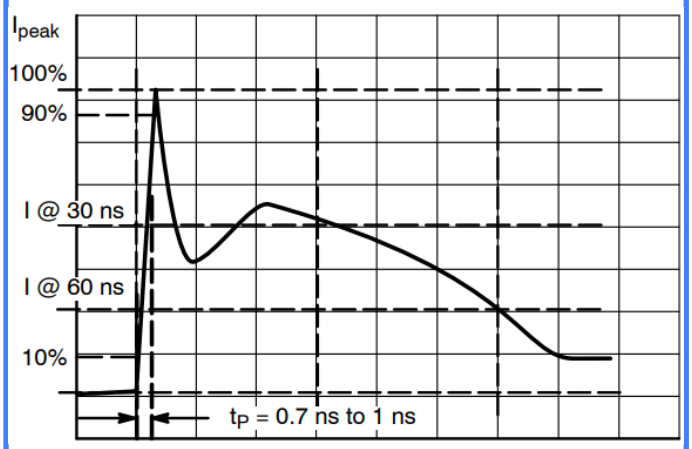
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	350	W
Maximum Reverse Peak Pulse Current (8/20μs)	I_{PP}	6	A
ESD per IEC 61000−4−2 (Air)	V_{ESD}	±25	KV
ESD per IEC 61000−4−2 (Contact)		±20	
Storage Temperature Range	T_{STJ}	-55 to +150	℃
Operating Temperature Range	T_J	-55 to +125	℃

Electrical Characteristics

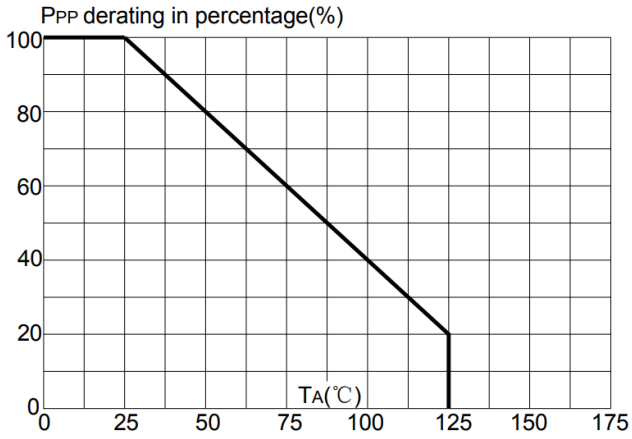
TA=25°C unless otherwise specified

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V_{RWM}	Reverse Working Peak Voltage	-			36	V
V_{BR}	Reverse Breakdown Voltage	IT = 1mA	38	40.5	45	V
I_R	Reverse Current	V_{RWM} = 36V			1	μA
V_C	Clamping Voltage	I_{PP}=1A, t_P =8/20μs		43	50	V
V_C	Clamping Voltage	I_{PP}=6A, t_P =8/20μs		53	60	V
C_D	Diode Capacitance	VR = 0V, f = 1MHz		22	50	pF

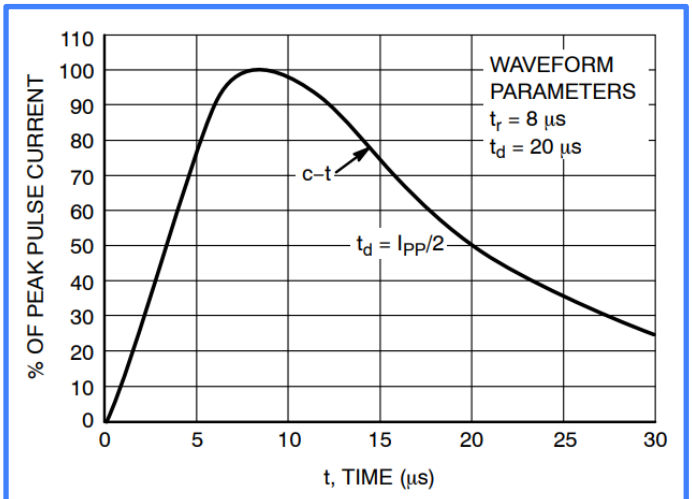
Characteristic Curves



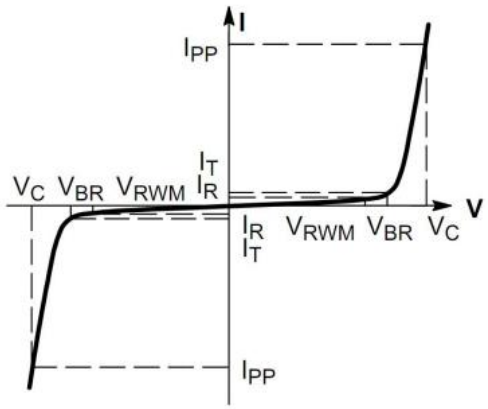
IEC61000−4−2 Pulse Waveform



Power Derating Curve

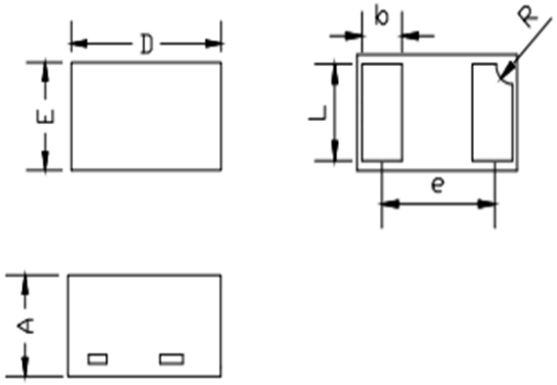


8/20μ s Pulse Waveform



V-I Characteristics for Bidirectional Diode

DFN1006-2 Package Outline & Dimensions



MILLMETER			
SYMBOL	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.