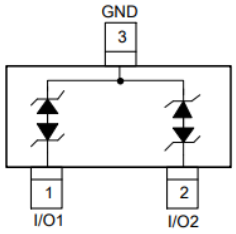
ESD36VAPB

Features

- SOT-23 package
- Operating voltage: 36V
- Low leakage current
- Low clamping voltage
- Response time is typically < 1ns
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    Air discharge: ±30kV
    Contact discharge: ±30kV
  - IEC61000-4-5 (Lightning) 4A (8/20μs)

Circuit Diagram



Description

ESD36VAPB is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium.

Applications

- RS-232, RS-422 & RS-485
- Servers, notebook, and desktop
- Cellular handsets and accessories
- Control & monitoring systems

Absolute Maximum Ratings

Tamb=25°C unless otherwise specified

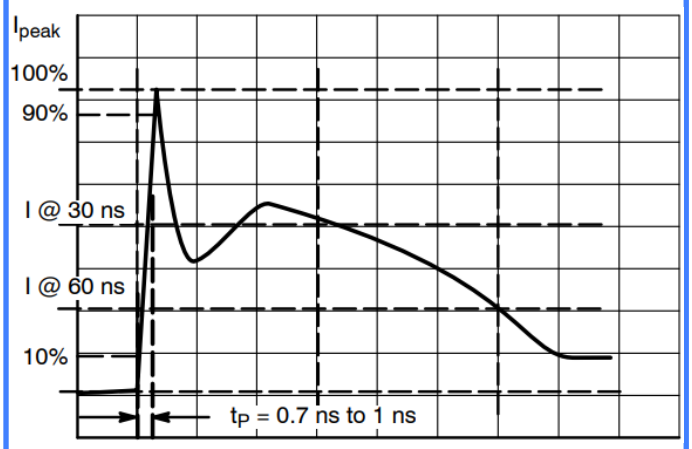
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	350	W
Maximum Reverse Peak Pulse Current	I_{PP} *1	4	A
ESD per IEC 61000−4−2 (Air)	V_{ESD}	±30	KV
ESD per IEC 61000−4−2 (Contact)		±30	
Storage Temperature Range	T_{STJ}	-55 to +150	℃
Operating Temperature Range	T_J	-55 to +125	℃

Electrical Characteristics

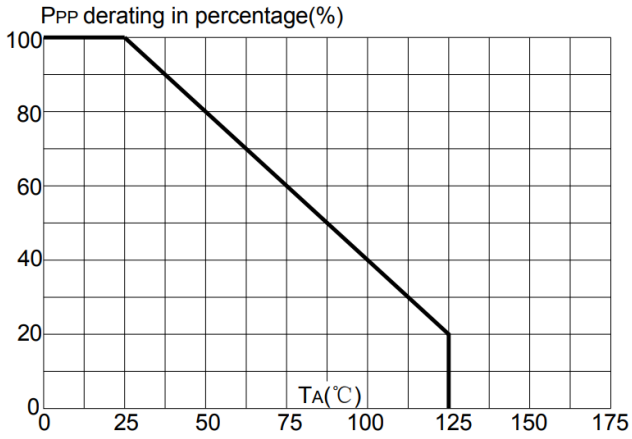
TA=25°C unless otherwise specified

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V_{RWM}	Reverse Working Peak Voltage	-			36	V
V_{BR}	Reverse Breakdown Voltage	IT = 1mA	38	42	45	V
I_R	Reverse Current	V_{RWM} = 24V			0.5	μA
V_C	Clamping Voltage	I_{PP}=1A, tP =8/20μs		45	55	V
V_C	Clamping Voltage	I_{PP}=4A, tP =8/20μs		60	70	V
C_D	Diode Capacitance	VR = 0V, f = 1MHz		20	45	pF

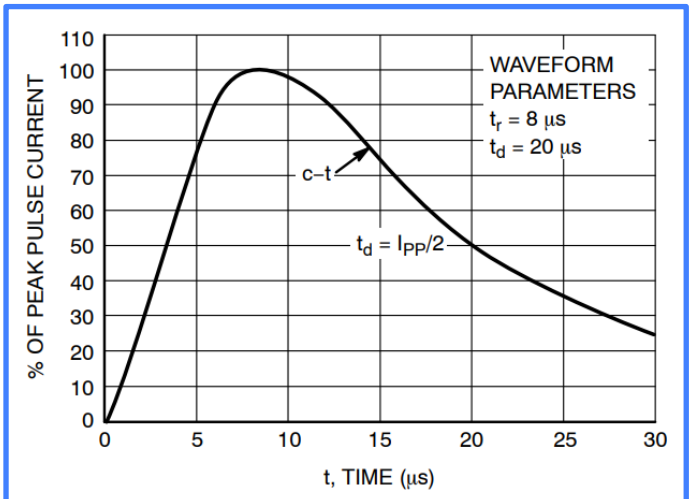
Characteristic Curves



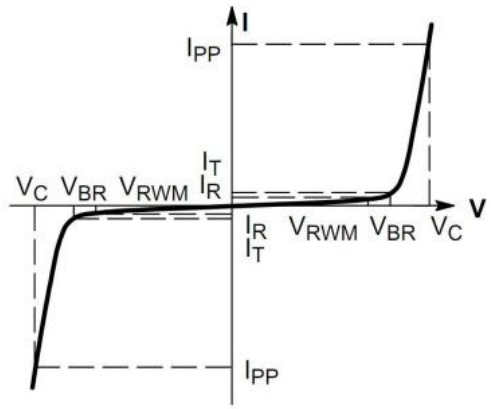
IEC61000−4−2 Pulse Waveform



Power Derating Curve

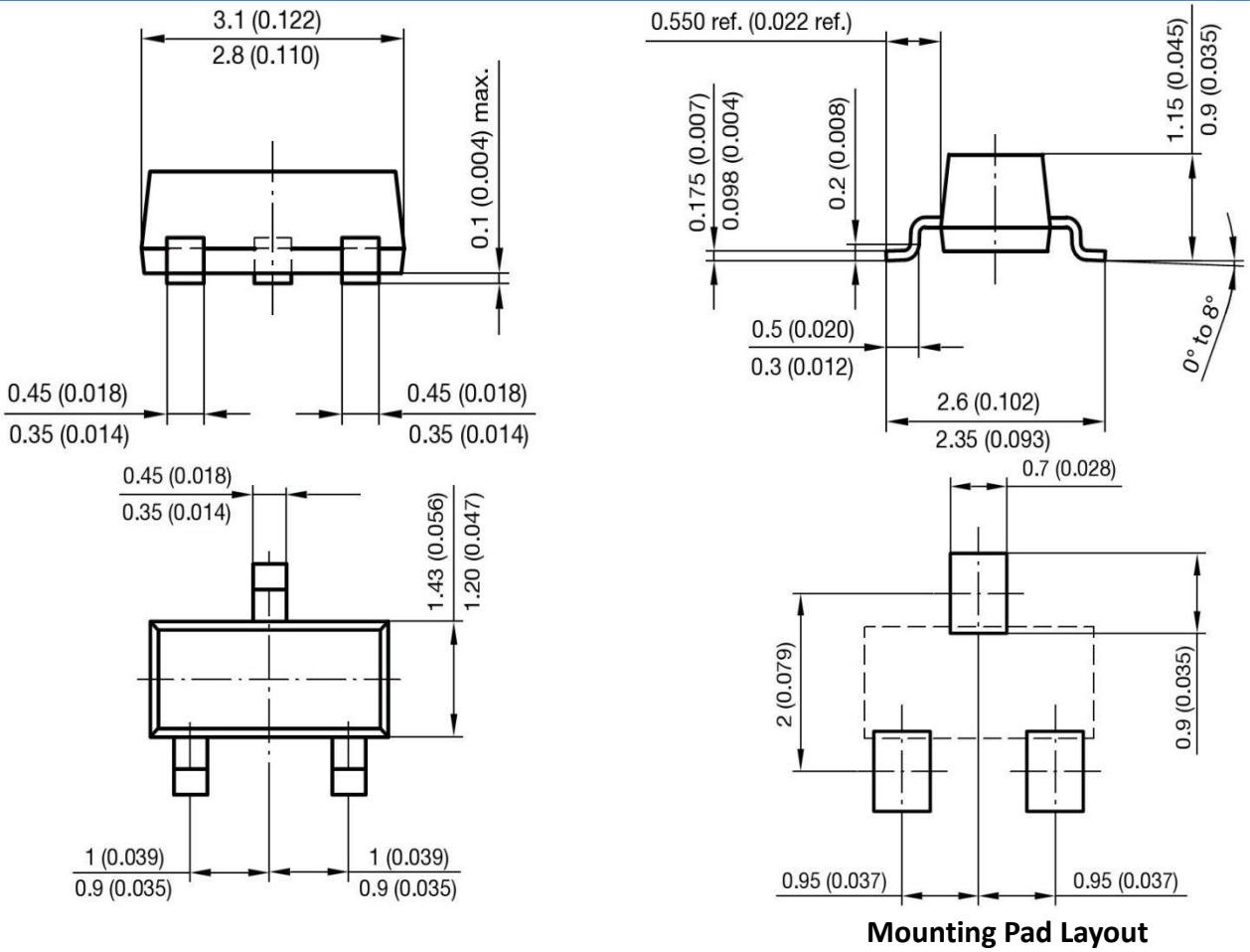


8/20µs Pulse Waveform



V-I Characteristics for Bidirectional Diode

SOT-23 Package Outline & Dimensions



Mounting Pad Layout

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.