

ESD24VAPB

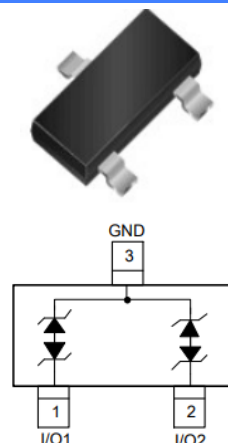
Features

- SOT-23 package
- Operating voltage: 24V
- Low leakage current
- Low clamping voltage
- Response time is typically < 1ns
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: $\pm 30\text{kV}$
 - Contact discharge: $\pm 30\text{kV}$
 - IEC61000-4-5 (Lightning) 10A (8/20 μs)
- AEC-Q101 qualified

Description

The ESD24VAPB TVS Diode Array is designed to protect automotive Controller Area Network (CAN) lines from damage due to electrostatic discharge (ESD), electrical fast transient (EFT), and other overvoltage transients.

Circuit Diagram



Applications

- Automotive Applications
- CAN Bus
- Lightning Control (DALI)
- T-BOX

Absolute Maximum Ratings

Tamb=25°C unless otherwise specified

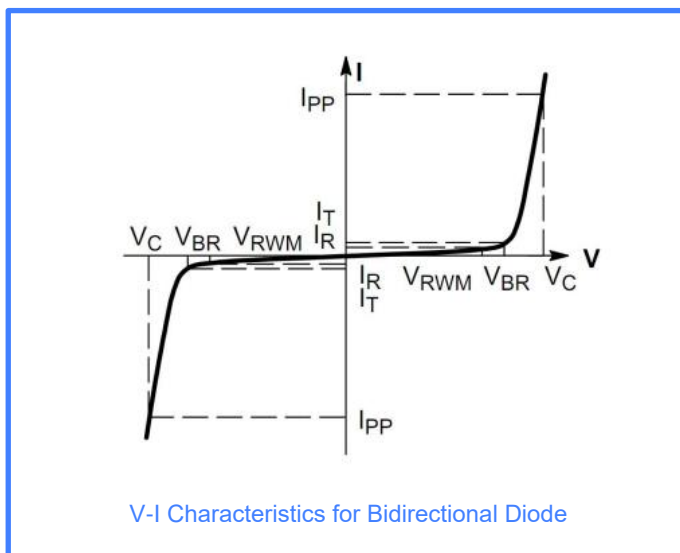
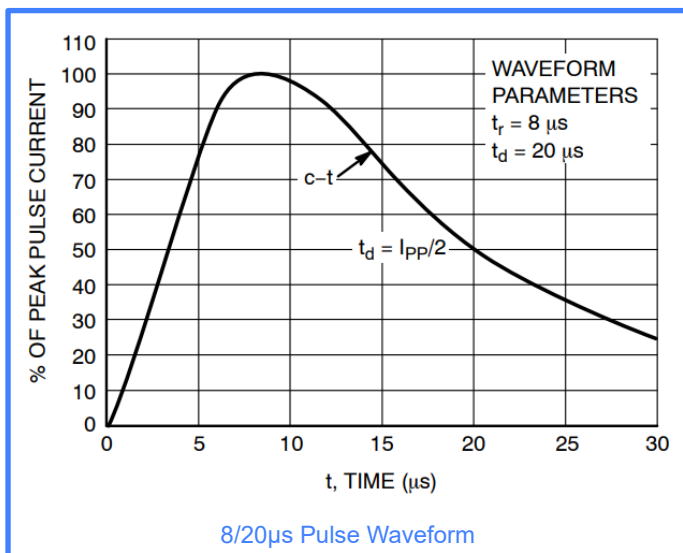
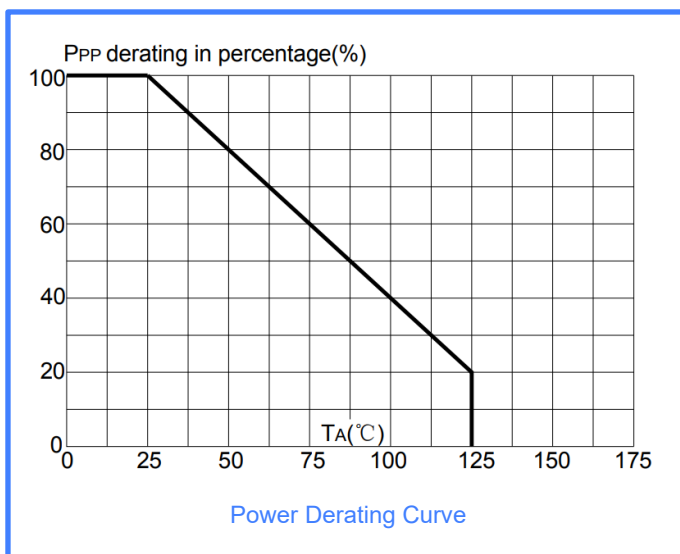
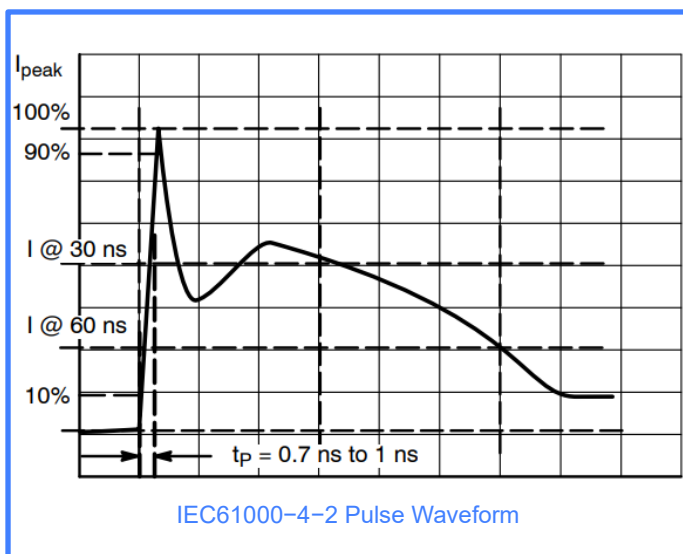
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μs)	P _{pp}	350	W
Maximum Reverse Peak Pulse Current	I _{PP} *1	10	A
ESD per IEC 61000-4-2 (Air)	V _{ESD}	± 30	KV
ESD per IEC 61000-4-2 (Contact)		± 30	
Storage Temperature Range	T _{stj}	-55 to +150	°C
Operating Temperature Range	T _j	-55 to +125	°C

Electrical Characteristics

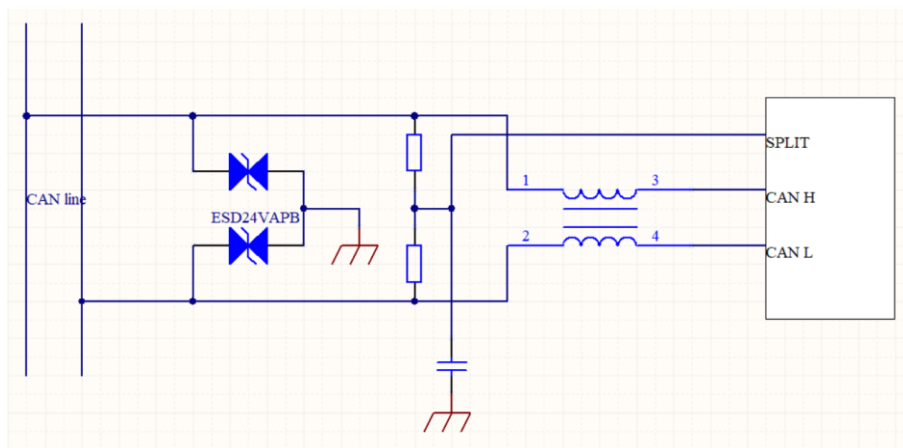
TA=25°C unless otherwise specified

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V _{RWM}	Reverse Working Peak Voltage	-			24.0	V
V _{BR}	Reverse Breakdown Voltage	I _T = 1mA	25.5	27.0	29.5	V
I _R	Reverse Current	V _{RWM} = 24V			0.5	μA
V _C	Clamping Voltage	I _{PP} =1A, t _P =8/20 μs		31	35	V
V _C	Clamping Voltage	I _{PP} =10A, t _P =8/20 μs		40	50	V
C _D	Diode Capacitance	V _R = 0V, f = 1MHz		30	50	pF

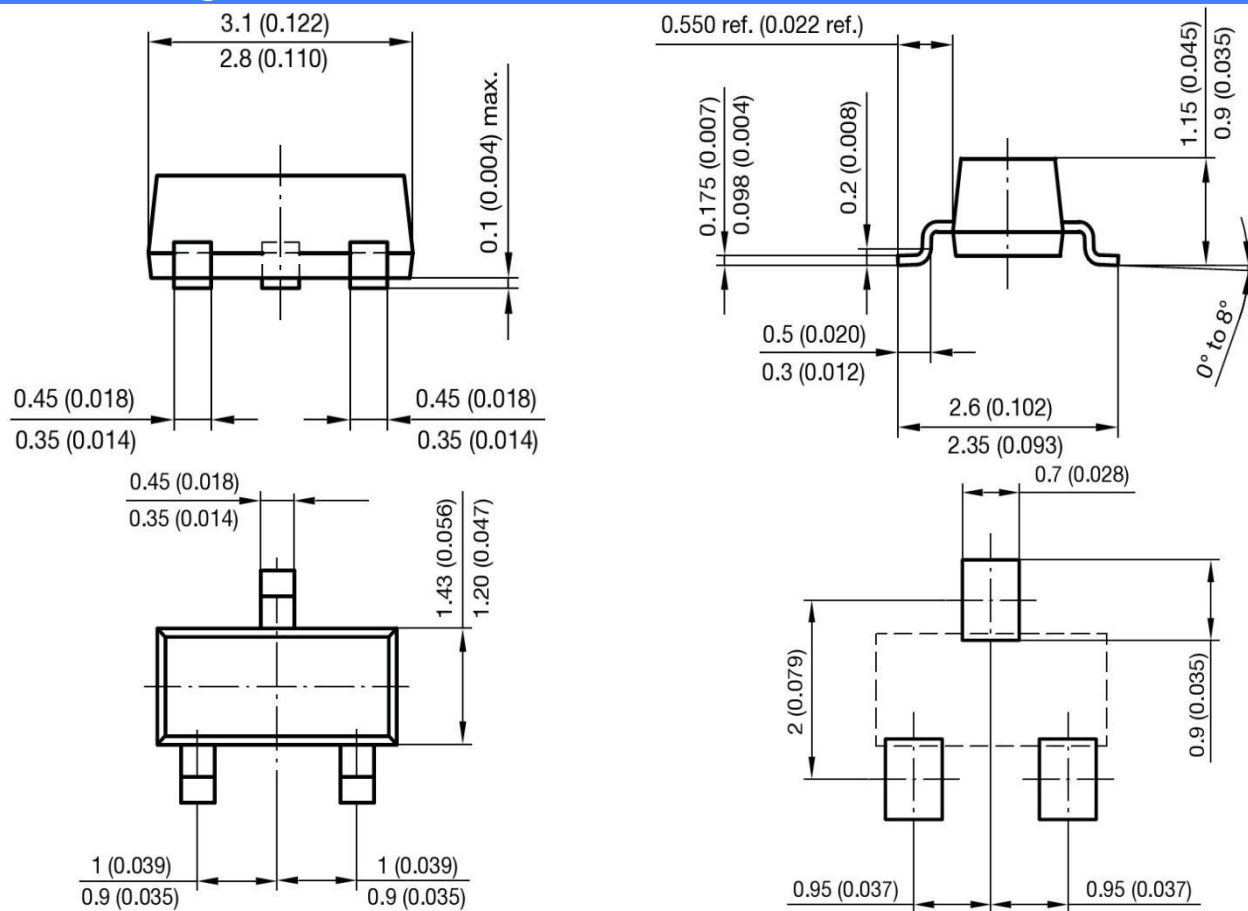
Characteristic Curves



Application Example



SOT-23 Package Outline & Dimensions



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.