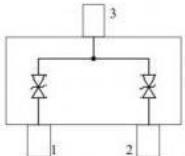



2-Line Bidirectional ESD Protection Diode
SOT23
Schematic & Pin configuration

Circuit diagram	Pinning
 <p>Marking: tAN</p>	PIN1 Lines 1 PIN2 Lines 2 PIN3 common pin

General description

These dual monolithic silicon surge protection diodes are designed for applications requiring transient overvoltage protection capability. They are intended for use in voltage and ESD sensitive equipment, as computers, printers, business machines, communication systems, medical equipment and other applications. Their bi-directional double ESD design protects two separate lines using only one package. These devices are ideal for situations where board space is at a premium.

Features and benefits

- Bi-directional ESD protection of 2 lines
- Reverse stand-off voltage: 24.0V Max
- Low clamping voltage
- Low leakage current: nA Level
- Response time is typically <1 ns
- ESD Protection: 20kV(air)/15kV(contact)(IEC61000-4-2)

Application information

- ADAS Control Units CAN Bus
 - PowerTrain Control Units
 - Electronic Control Units
- Factory Automation
- Body Control Units
- Lightning Control (DALI)

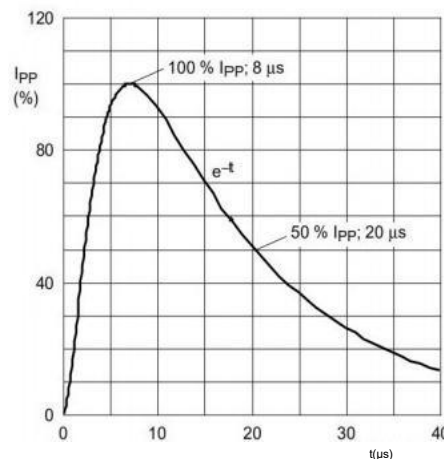
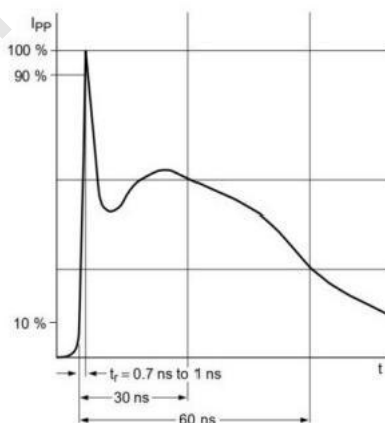
Maximum Ratings (Top=25 C, unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p=8/20 \mu s$)	PPPM	160	W
Peak Pulse Current ($t_p=8/20 \mu s$)	IppM	4	A
Maximum lead temperature for soldering during 10s	TL	260	$^{\circ}C$
Storage Temperature Range	Tstg	-55 to +150	$^{\circ}C$
Operating Temperature Range	Top	-40 to +125	$^{\circ}C$
Maximum junction temperature	Tj	150	$^{\circ}C$
ESD voltage IEC 61000-4-2 (air discharge)	VesD	20	kV
ESD voltage IEC 61000-4-2 (contact discharge)	VESD	15	kV

Electrical Characteristics (Top=25C, unless otherwise specified)

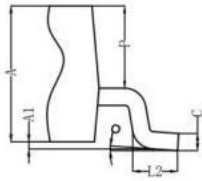
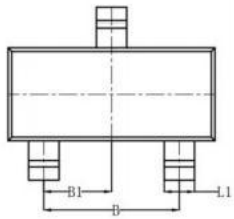
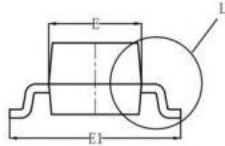
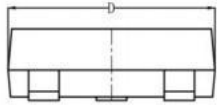
Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse Working Voltage	VRWM			24.0	V	
Breakdown Voltage	VBR	26.7		32	V	$I_r=1mA$
Leakage Current ILeak	I_r			100	nA	$V_{Rwm}=24V$
Clamping Voltage	V_c		35 38	38 40	V	$I_{pp}=4A, T_p=8/20 \mu s$ (Pin 1 or 2 to 3) (Pin 3 to 2 or 1)
Junction Capacitance	C		10	12	pF	$V_R=0V, f=1MHz$ (Pin 1 or 2 to 3) (Pin 3 to 2 or 1)
			5.0	6.0	pF	$V_R=24V, f=1MHz$ (Pin 1 or 2 to 3) (Pin 3 to 2 or 1)

Typical Characteristics



Package Outline Dimensions

SOT23



Symbol	Dimensions (mm)		
	Min	Typ	Max
A	0.900	1.000	1.1100
A1	0.000	0.050	0.100
L1	0.350	0.400	0.500
C	0.100	0.110	0.120
D	2.800	2.900	3.000
E	1.250	1.300	1.350
E1	2.250	2.400	2.550
B	1.800	1.900	2.000
B1	0.950 Typ		
L2	0.200	0.350	0.450
P	0.550	0.575	0.600