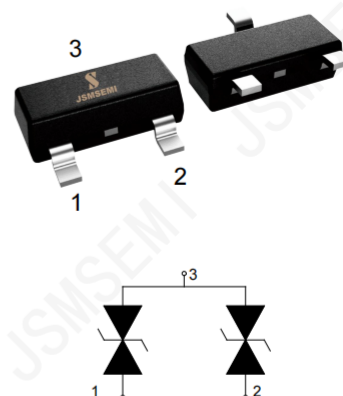


Description

The PESD2IVN24-TR-JSM is a Transient Voltage Suppressor Arrays that designed to protect components which are connected to data and transmission lines against electrostatic discharge (ESD), electrical fast Transients (EFT), and lightning. All pins are rated to withstand 30kV ESD pulses using the IEC61000-4-2 discharge method.



Features

- IEC 61000-4-2 Level 4 ESD Protection
 - $\pm 30\text{kV}$ Contact Discharge
 - $\pm 30\text{kV}$ Air Discharge
- 600W Peak pulse Power (8/20us)
- Low clamping voltage
- Protects two bidirectional or two Unidirectional lines
- Low leakage current
- RoHS compliant

Applications

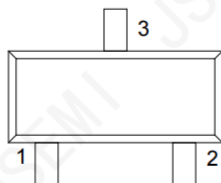
- Portable electronic
- Control & monitoring systems
- Servers, notebooks, and desktop PCs
- Set-top box
- Communications systems
- Cellular handsets and accessories

Absolute Maximum rating

Over operating free-air temperature range (unless otherwise noted)

Parameters	Symbol	Min.	Max.	Unit
Peak pulse power ($t_p=8/20\mu\text{s}$)@25°C	P_{pk}	-	600	W
Peak pulse current ($t_p=8/20\mu\text{s}$)@25°C	I_{PP}		Refer to Table-5	A
ESD (IEC61000-4-2 air discharge) @25°C	V_{ESD}	-	± 30	kV
ESD (IEC61000-4-2 contact discharge) @25°C	V_{ESD}	-	± 30	kV
Junction temperature	T_J	-	150	°C
Operating temperature	T_{OP}	-55	150	°C
Storage temperature	T_{STG}	-55	150	°C
Lead temperature	T_L	-	260	°C

Pin Configuration and Functions



Pin	Name	Description
1	IO	Connect to IO
2	IO	Connect to IO
3	GND	Connect to GND

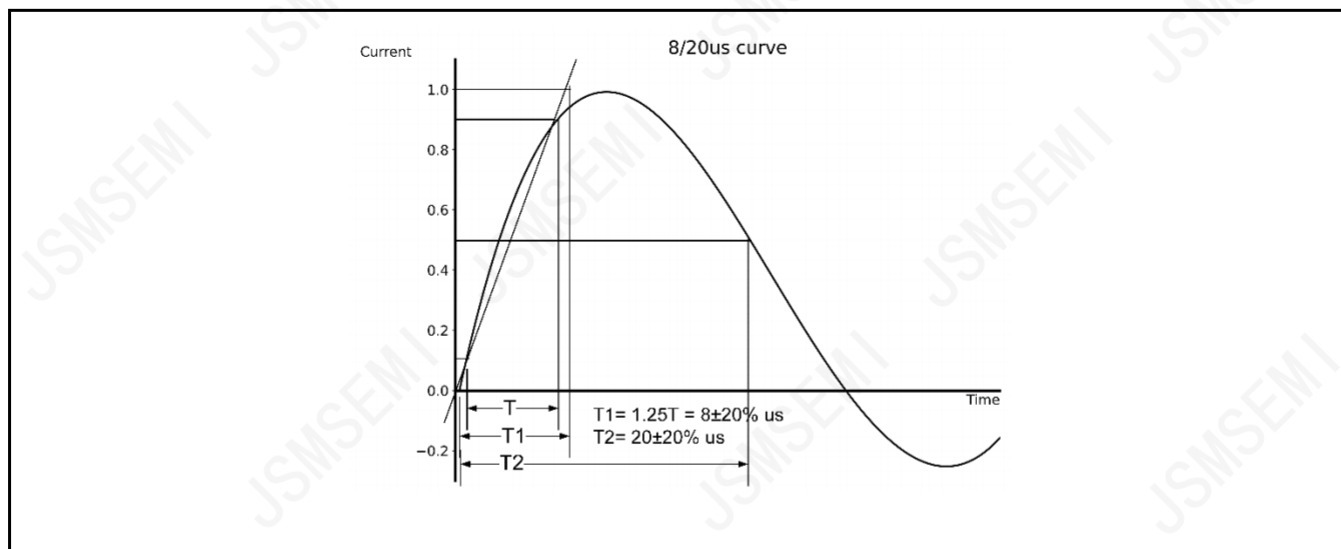
Electrical Characteristics

Symbol	Description
V_{RWM}	Rated reverse stand-off voltage
V_{BR}	Minimum breakdown voltage @ $I_T = 1mA$
V_{CL}	Typical Clamping voltage
I_{PP}	Maximum peak pulse current
I_R	Reverse leakage current @ V_{RWM}
C_O	Typical line capacitance ($V_{IO}=0V$, $V_{P-P} = 30mV$, $f = 1MHz$)

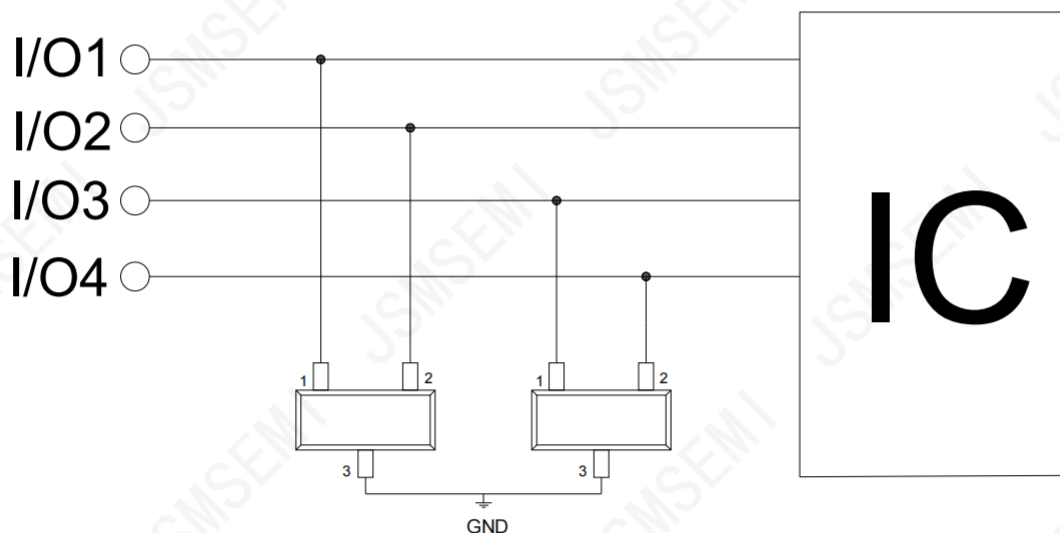
At $T_A = 25^{\circ}C$ unless otherwise noted

Part Number	V_{RWM} (Max.)	V_{BR} (Min.)	$V_{CL}@I=1A$ (Typ.)	I_{PP} (Max.)	$V_{CL}@I=I_{PP}$ (Typ.)	I_R (Max.)	C_O (Typ.)
	(V)	(V)	(V)	(A)	(V)	(μA)	(pF)
PESD2IVN24-TR-JSM	24	26.0	40.0	7	50.0	1.0	24

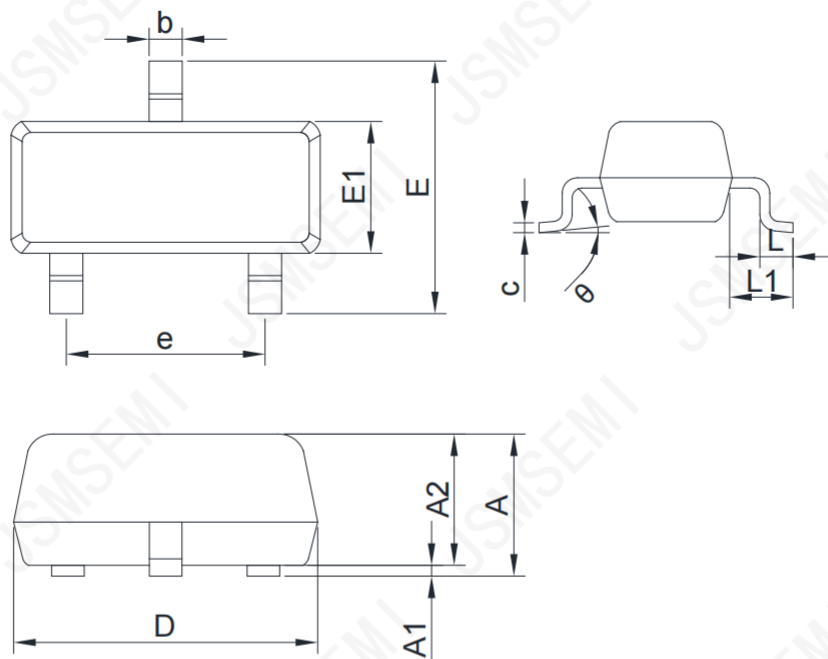
Typical Characteristic



Typical Application

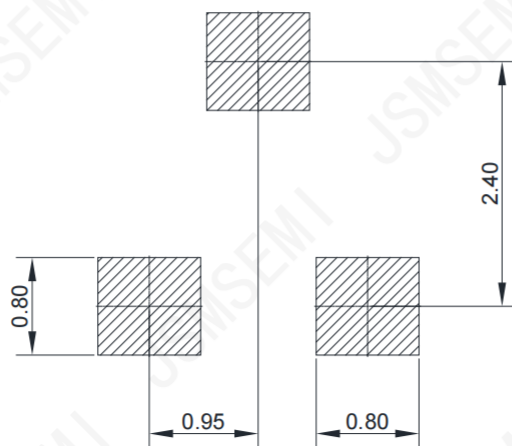


Dimension (SOT-23)



COMMON DIMENSIONS CUNITS MEASURE=MILLIMETER					
SYMBOL	MIN	MAX	SYMBOL	MIN	MAX
A	0.90	1.20	E	2.25	2.55
A1	0.00	0.10	E1	1.20	1.40
A2	0.90	1.10	e	1.80	2.00
b	0.30	0.50	L	0.30	0.50
c	0.07	0.18	L1	0.475	0.625
D	2.80	3.04	θ	0°	8°

Recommended Soldering Footprint



Revision History

Rev.	Change	Date
V1.0	Initial version	6/27/2021

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