

ESDA6V1W6

Transil array for data protection

Description

The ESDA6V1W6 is monolithic suppressor designed to protect components connected to data and transmission lines against ESD. This device clamps the voltage just above the logic level supply for positive transients and to a diode drop below ground for negative transients.

Features

- 5 Unidirectional Transil functions
- Low leakage current: < 1 μ A
- High integration
- RoHS Compliant Package

Application

- Computers
- Printers
- Communication systems
- Cellular phones handsets and accessories
- Wireline and wireless telephone sets
- Set top boxes

Complies with the following standards

- IEC61000-4-2
- Level 4 15 kV (air discharge)
8 kV(contact discharge)
- MIL STD 883E - Method 3015-7 Class 3
- 25 kV HBM (Human Body Model)

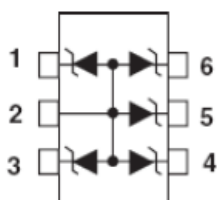
Packing & Order Information

3,000/Reel

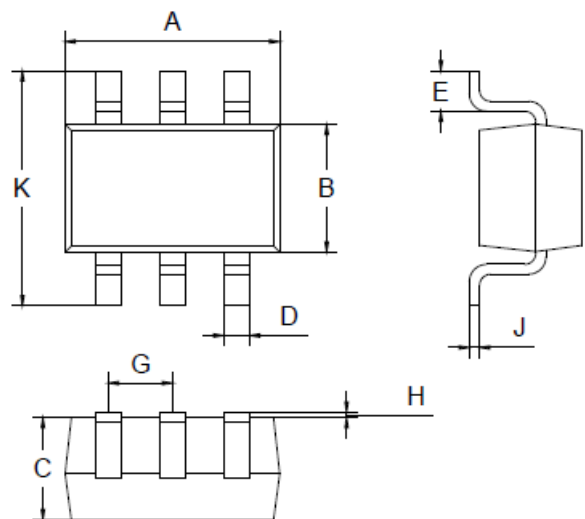


RoHS
COMPLIANT

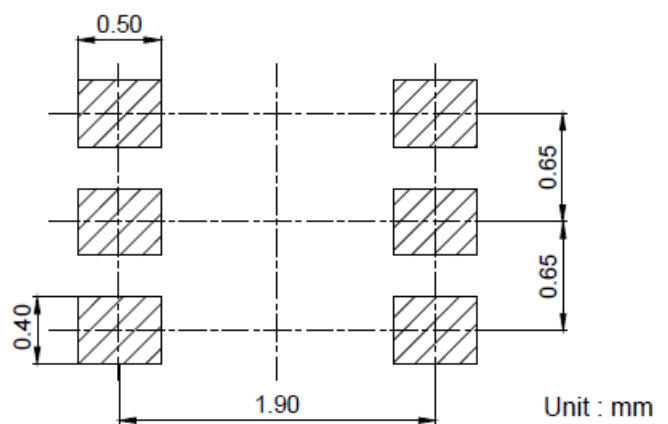
Graphic symbol



SOT-363 Package



SOLDERING FOOTPRINT



SOT-363		
Dim	Min	Max
A	2.00	2.20
B	1.15	1.35
C	0.95 Typical	
D	0.25 Typical	
E	0.25	0.40
G	0.60	0.70
H	0.02	0.10
J	0.10 Typical	
K	2.2	2.4
All Dimensions in mm		

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Absolute Ratings (Tamb=25°C)

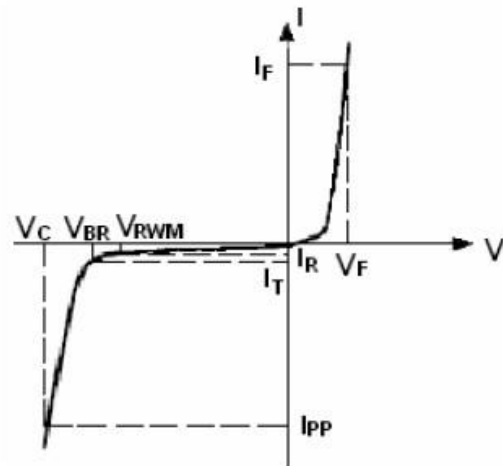
Symbol	Parameter	Value	Unit
Ppp	Peak Pulse Power (tp = 8/20µs)	150	W
Tj	Maximum lead temperature for soldering during 10s	260	°C
TSTG	Storage Temperature Range	-40 to +125	°C
TOP	Operating Temperature Range	-40 to +125	°C

Electrical Characteristics

Part Numbers	V _{BR}			I _T	V _{RWM}	I _R	V _F	I _F	C
	Min.	Typ.	Max.				Max.		
	V	V	V				V		
ESDA6V1W5	6.1	6.7	7.2	1	5	1	1.25	200	35 Typ. 0v bias

1. Square pulse IPP=15A, tp=2.5µs 2. V=aT*(T-25°C)*V(25°C)

Symbol	Parameter
I _{PP}	Maximum Reverse Peak Pulse Current
V _C	Clamping Voltage @ I _{PP}
V _{RWM}	Working Peak Reverse Voltage
I _R	Maximum Reverse Leakage Current @ V _{RWM}
I _T	Test Current
V _{BR}	Breakdown Voltage @ I _T
I _F	Forward Current
V _F	Forward Voltage @ I _F



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Typical Device Characteristics

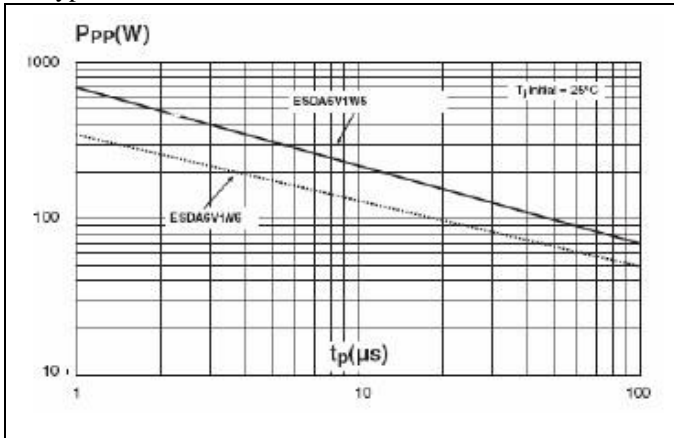


FIG.1-PEAK PULSE POWER VERSUS EXPONENTIAL PULSE DURATION (T_J INITIAL=25°C)

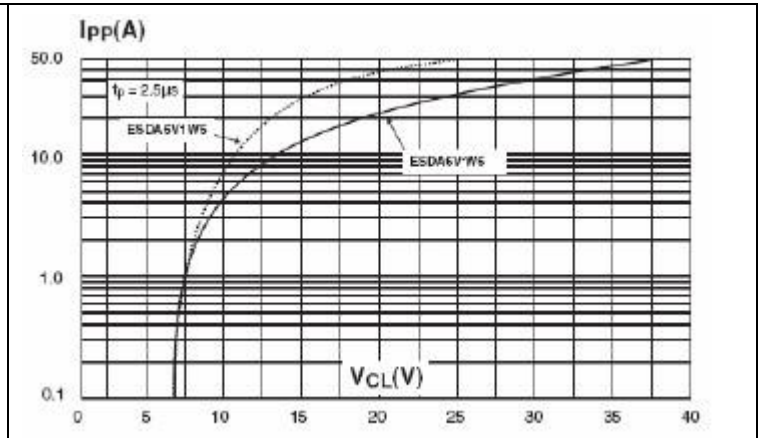


FIG.2-CLAMPING VOLTAGE VERSUS PEAK PULSE CURRENT (T_J INITIAL=25°C, RECTANGULAR WAVEFORM, $T_P=2.5 \mu s$)

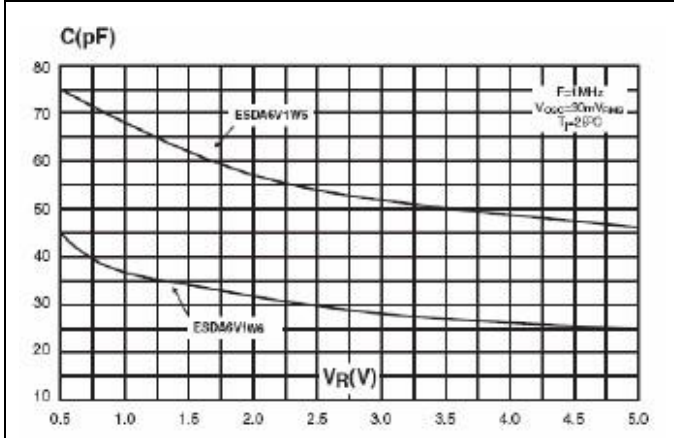


FIG.3-CAPACITANCE VERSUS REVERSE APPLIED VOLTAGE

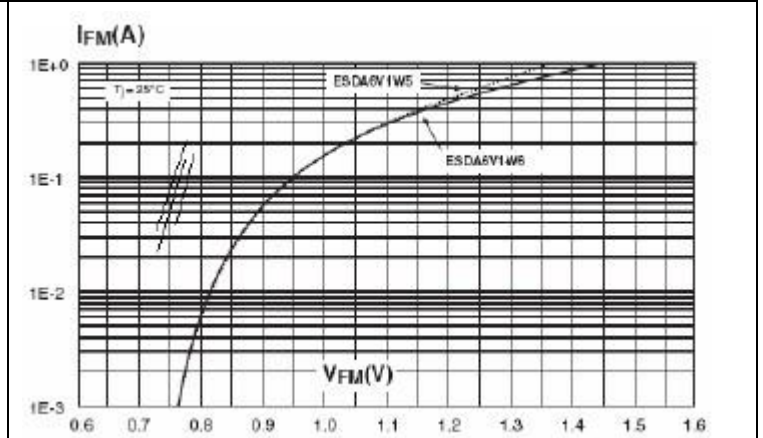


FIG.4-PEAK FORWARD VOLTAGE DROP VERSUS FORWARD CURRENT

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