



## PJSDA5V2W5 SERIES

### QUAD TVS/ESD ARRAYS FOR ESD AND LATCH-UP PROTECTION

The Quad TVS/ESD arrays are designed to protect sensitive electronics from damage or latch-up due to ESD. They are available with operating voltage of 5.6V,6.2V,6.8V.

The series devices feature transient overvoltage protection.

Its integrated design provides very effective and reliable protection for four separate lines using only one package.

The series use to meet the immunity requirement of IEC61000. Level 4.

#### FEATURES

- IEC61000-4-2 ESD 15kV Air,8kV Contact compliance
- Low clamping voltage
- Peak power dissipation of 150W under 8/20µs waveform
- Quad directional configuration
- Flammability rating UL94V-0
- In compliance with EU RoHS 2002/95/EC directives

#### MECHANICAL DATA

Case : SOT-353, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Appox Weight : 0.0057 grams

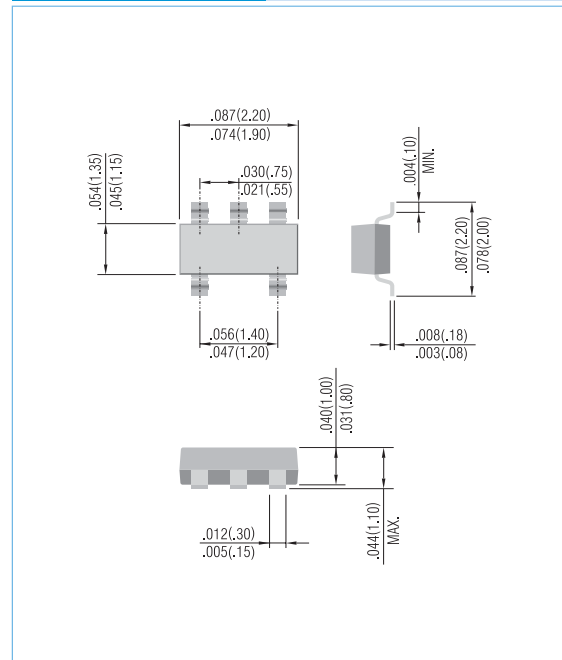
Marking : PJSDA5V2W5 : 2W5

PJSDA5V8W5 : 8W5

PJSDA6V1W5 : 1W5

SOT-353

Unit: inch ( mm )



#### MAXIMUM RATINGS

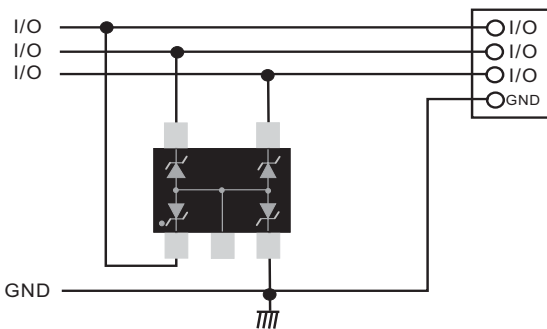
Rating	Symbol	Value	Units
Peak Pulse Power (8/20 µs waveform)	PP	150	W
Peak Pulse Current (8/20 µs waveform)	I PPM	10	A
ESD Voltage (HBM Contact)	VESD	>25	kV
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150	°C



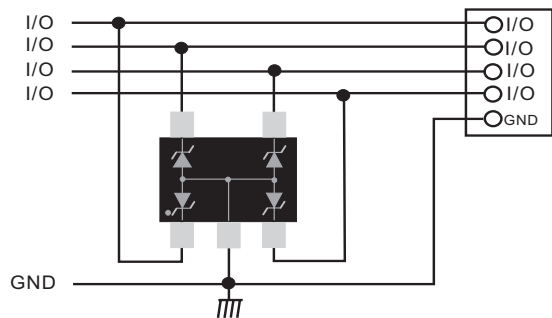
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### ELECTRICAL CHARACTERISTICS (T<sub>J</sub>=25°C)

PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
<b>PJSDA5V2W5</b>						
Reverse Stand-Off Voltage	V <sub>WRM</sub>		-	-	3.3	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =1mA	5.3	5.6	5.88	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =3.3V	-	-	1	μA
Clamping Voltage (8/20μs)	V <sub>C</sub>	I <sub>PP</sub> =10A	-	-	10	V
Off State Junction Capacitance	C <sub>J</sub>	0Vdc, f=1MHZ between I/O lines and GND	-	240	-	pF
<b>PJSDA5V8W5</b>						
Reverse Stand-Off Voltage	V <sub>WRM</sub>		-	-	4.3	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =1mA	5.9	6.2	6.51	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =4.3V	-	-	1	μA
Clamping Voltage (8/20μs)	V <sub>C</sub>	I <sub>PP</sub> =10A	-	-	11	V
Off State Junction Capacitance	C <sub>J</sub>	0Vdc, f=1MHZ between I/O lines and GND	-	220	-	pF
<b>PJSDA6V1W5</b>						
Reverse Stand-Off Voltage	V <sub>WRM</sub>		-	-	5	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>BR</sub> =1mA	6.2	6.8	7.04	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> =5.0V	-	-	5	μA
Clamping Voltage (8/20μs)	V <sub>C</sub>	I <sub>PP</sub> =10A	-	-	12	V
Off State Junction Capacitance	C <sub>J</sub>	0Vdc, f=1MHZ between I/O lines and GND	-	180	-	pF



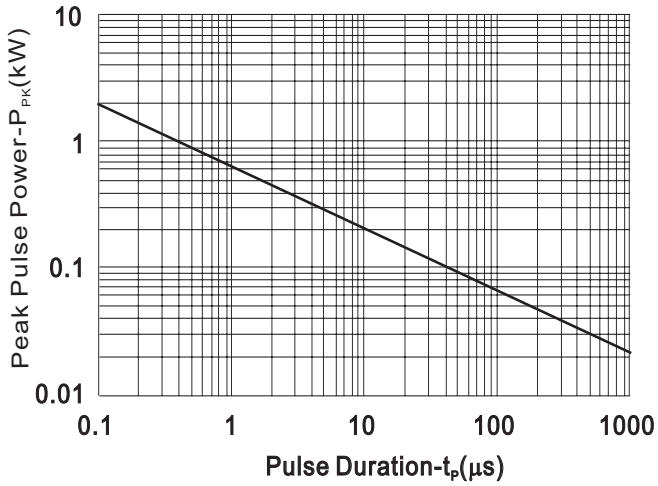
Bi-directional Protection



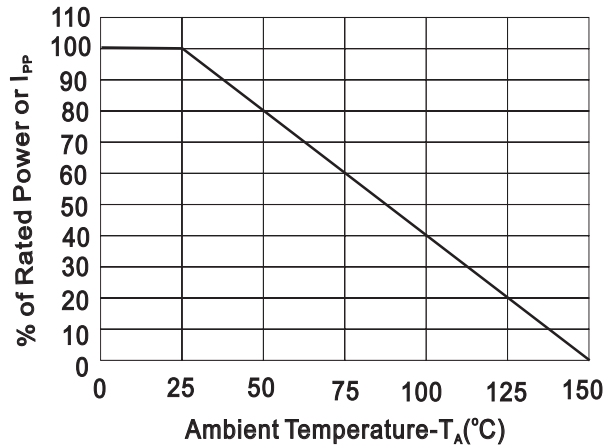
Uni-directional Protection



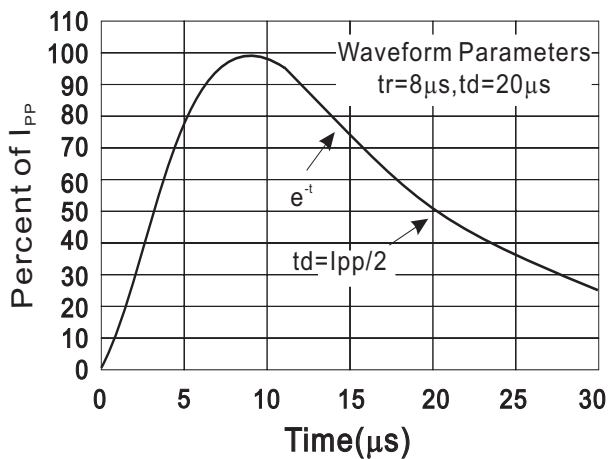
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**FIG.1 Non-Repetitive Peak Pulse Power vs. Pulse Time**



**FIG.2 Power Derating Curve**

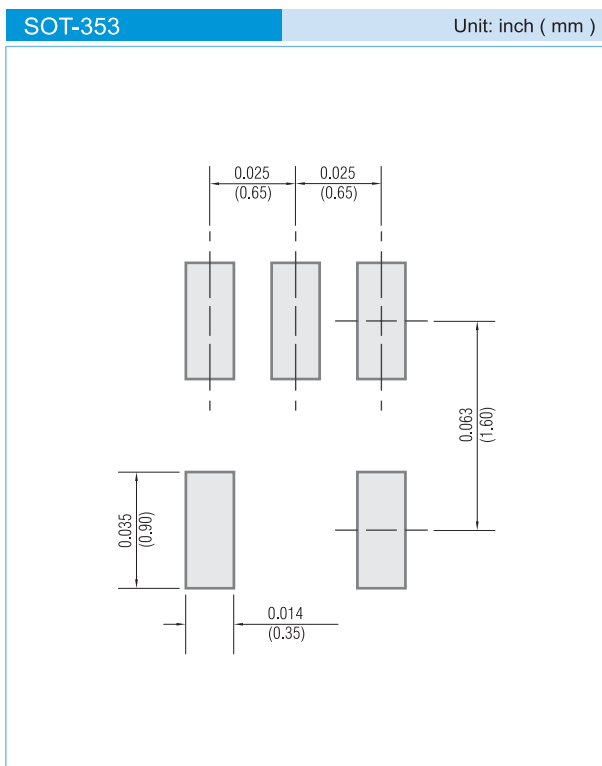


**FIG.3 Pulse Waveform**



## PJSDA5V2W5 SERIES

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information
  - T/R - 10K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel

### LEGAL STATEMENT

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