



# PJQA6V2

## Transient Voltage Suppressors for ESD Protection

This quad monolithic silicon voltage suppressor is designed for applications requiring transient overvoltage protection capability. It is intended for use in voltage and ESD sensitive equipment such as computers, printers, business machines, communication systems, medical equipment, and other applications. Its quad junction common anode design protects four separate lines using only one package. These devices are ideal for situations where board space is at a premium.

**VOLTAGE** 4.3 Volts **POEWR** 150 Watts

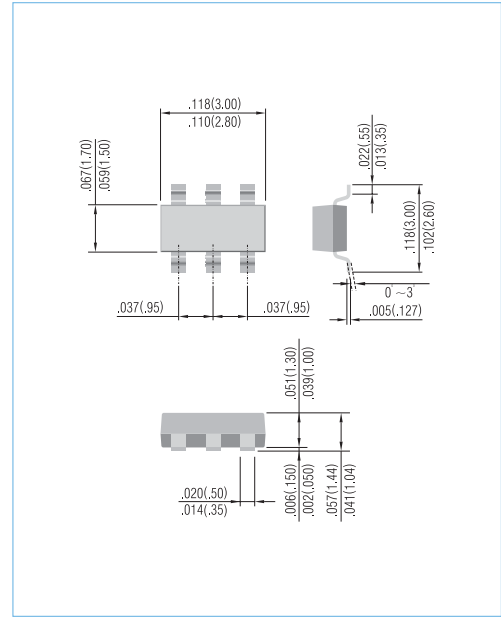
### FEATURES

- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

Case: SOT23-6L Molded plastic  
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

SOT23-6L Unit: inch ( mm )



### THERMAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Characteristic	Symbol	Value	Unit
Peak Power Dissipation @ 1.0ms @ T <sub>A</sub> ≤25°C	P <sub>PK</sub>	24	W
Peak Power Dissipation @ 20 μs @ T <sub>A</sub> ≤25°C	P <sub>PK</sub>	150	W
Total Power Dissipation on FR-4 Board @ T <sub>A</sub> ≤25°C	P <sub>D</sub>	225 1.8	mW mW/°C
Thermal Resistance from Junction - to -Ambient	R <sub>θJA</sub>	556	°C/W
Total Power Dissipation on Alumina Substrate @ T <sub>A</sub> ≤25°C Derate above 25°C	P <sub>D</sub>	300 2.4	mW mW/°C
Thermal Resistance from Junction - to -Ambient	R <sub>θJA</sub>	417	°C/W
Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to + 150	°C
Lead Solder Temperature - Maximum (10 Second Duration)	T <sub>L</sub>	260	°C

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### ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Device	Breakdown Voltage				Max Reverse Leakage Current		Max Zener Impedance	Max Reverse Surge Current	Max Reverse Voltage @ I <sub>RSM</sub>	Maximum Temperature Coefficient of V <sub>Z</sub>
	V <sub>ZT</sub> (V)			@ I <sub>ZT</sub>	I <sub>R</sub>	V <sub>R</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	I <sub>RSM</sub>	V <sub>RSM</sub>	
	Min	Nom	Max	mA	nA	V	Ω	mA	A	
PJQA6V2	5.89	6.2	6.51	1.0	700	4.3	300	10	9.5	10.6



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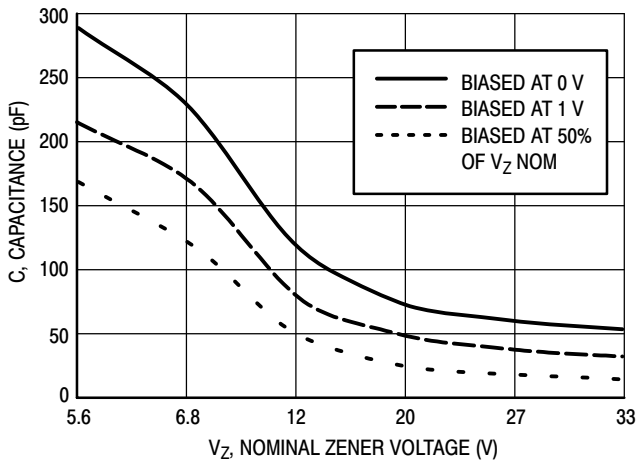


Figure 1. Typical Capacitance

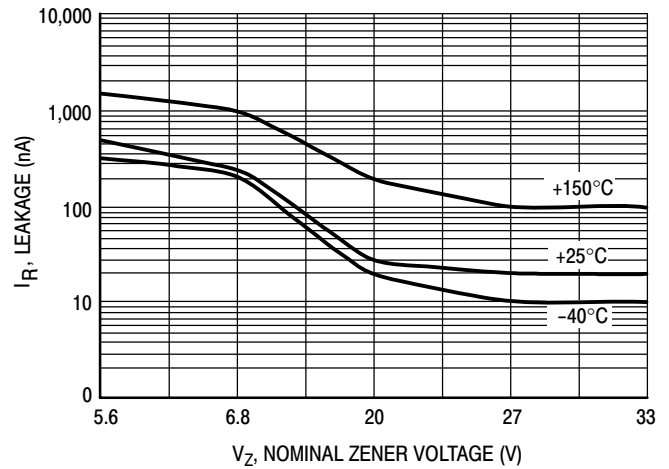


Figure 2. Typical Leakage Current

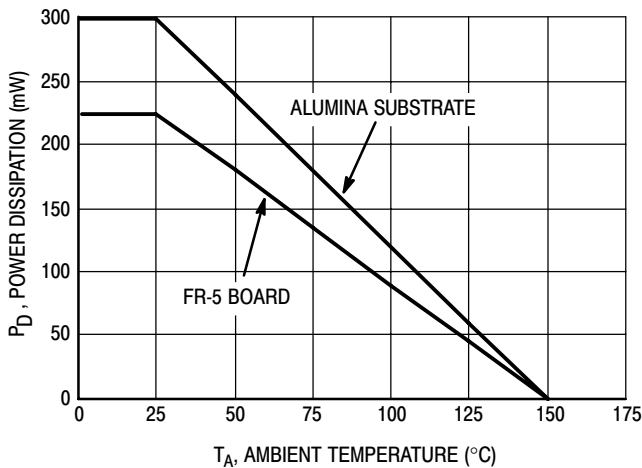


Figure 3. Steady State Power Derating Curve

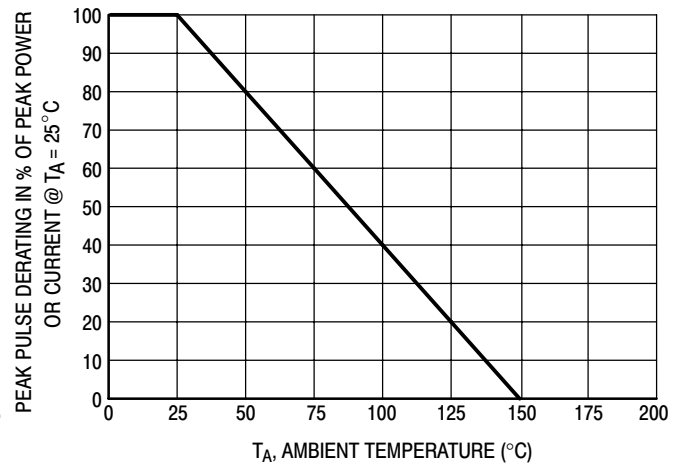


Figure 4. Pulse Derating Curve

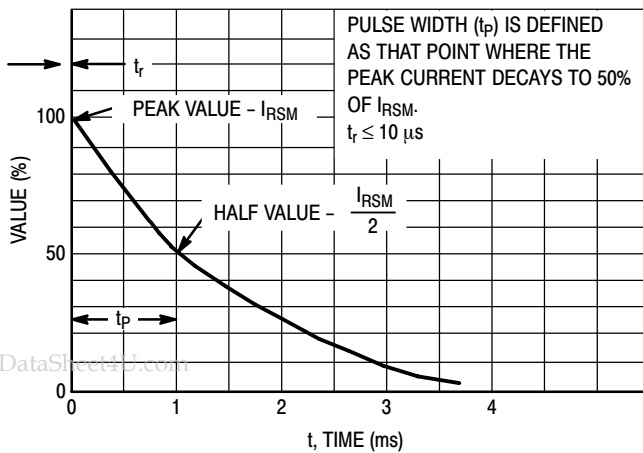


Figure 5. 10 × 1000 μs Pulse Waveform

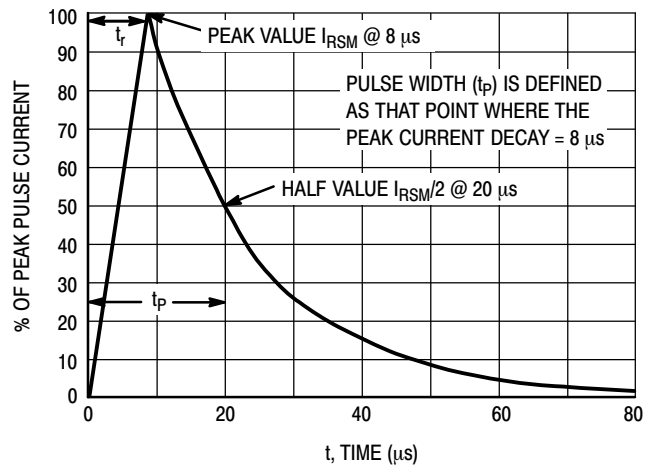
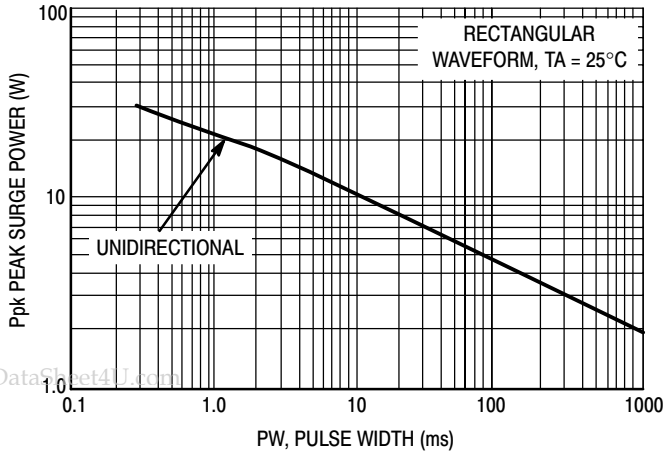


Figure 6. 8 × 20 μs Pulse Waveform

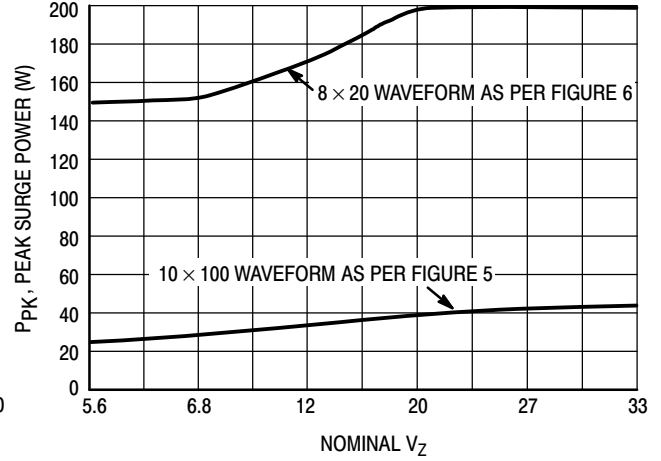


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**Figure 7. Maximum Non-Repetitive Surge Power, Ppk versus PW**

Power is defined as  $V_{RSM} \times I_Z(pk)$  where  $V_{RSM}$  is the clamping voltage at  $I_Z(pk)$ .

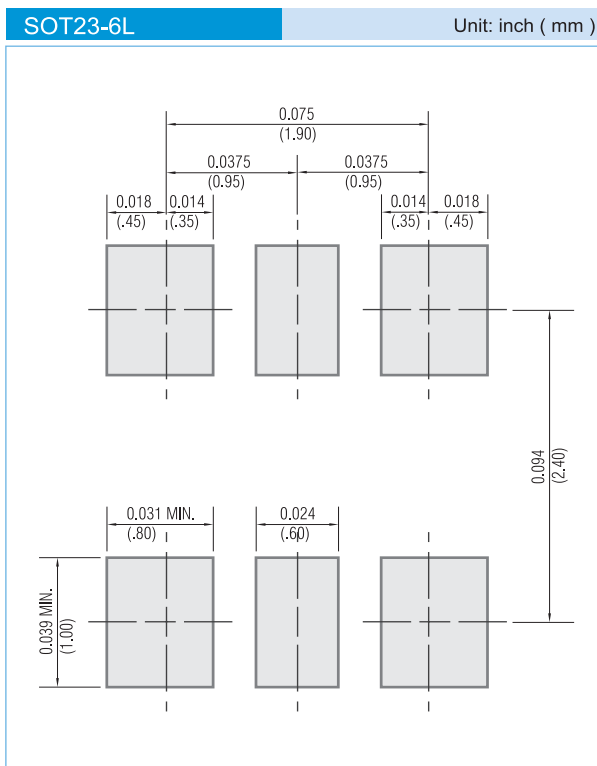


**Figure 8. Typical Maximum Non-Repetitive Surge Power, Ppk versus  $V_{BR}$**



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## 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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