

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 Volt **POWER** 150 Watt

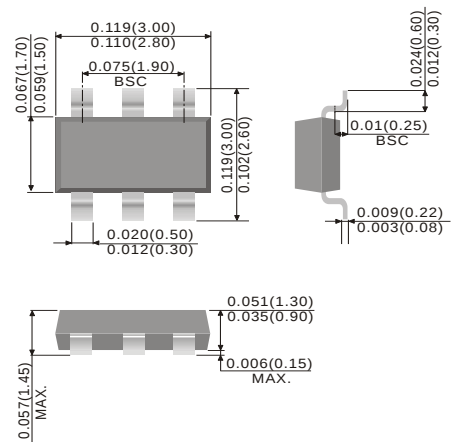
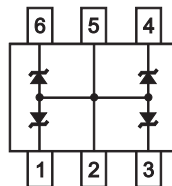
SOT-23 6L Unit : inch(mm)

FEATURES

- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

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



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

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

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 _{RSM}	Maximum Temperature Coefficient of V _Z
		V _{ZT} (V)		@ I _{ZT}	I _R	V _R	Z _{ZT} @ I _{ZT}		I _{RSM}	V _{RSM}	
	Min	Nom	Max	mA	nA	V	Ω	mA	A	V	
PJQA6V2	5.89	6.2	6.51	1.0	700	4.3	300		10	9.5	10.6

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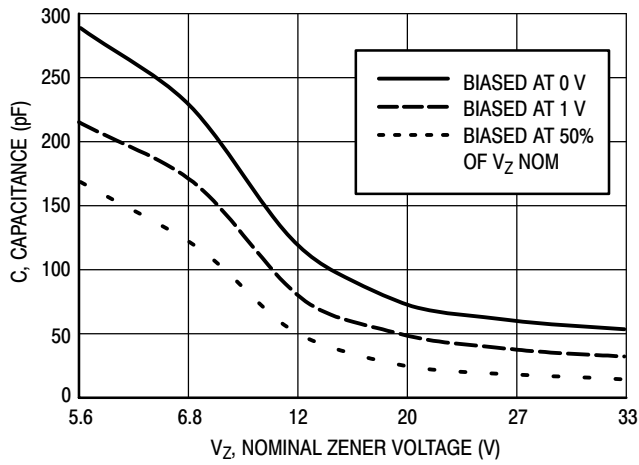


Figure 1. Typical Capacitance

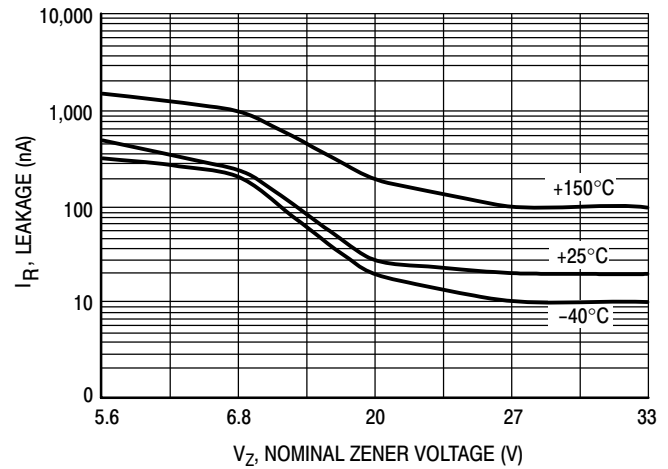


Figure 2. Typical Leakage Current

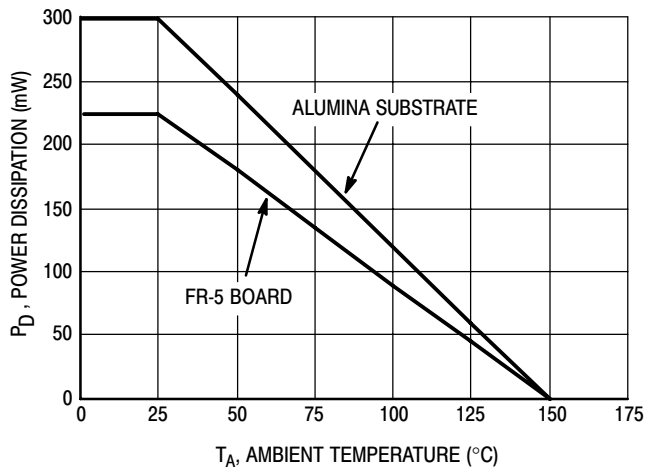


Figure 3. Steady State Power Derating Curve

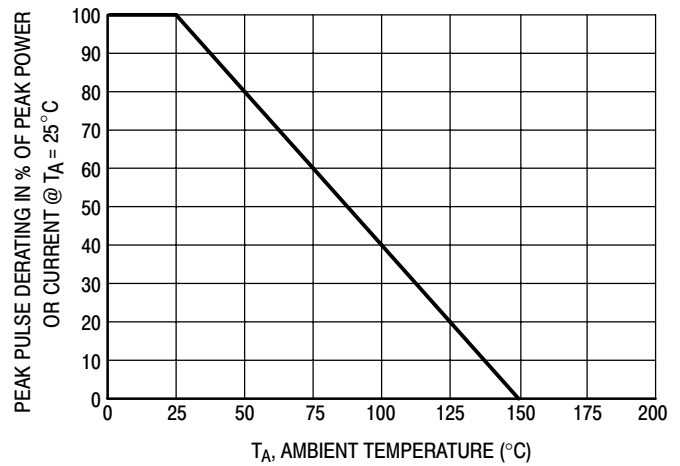


Figure 4. Pulse Derating Curve

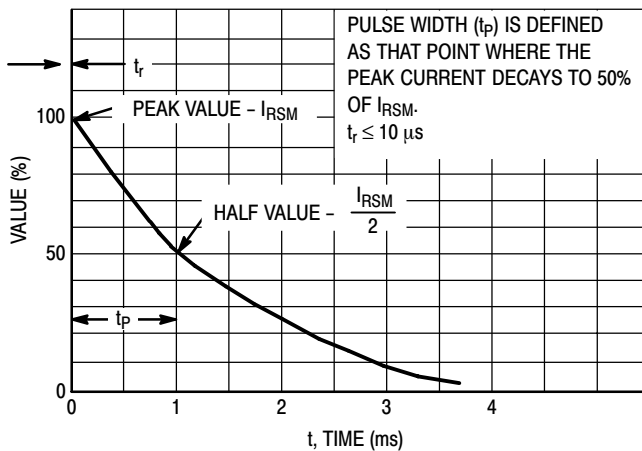


Figure 5. $10 \times 1000 \mu s$ Pulse Waveform

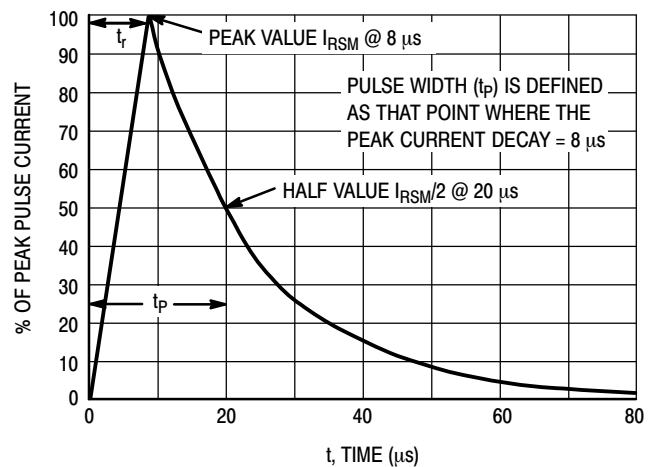


Figure 6. $8 \times 20 \mu s$ Pulse Waveform

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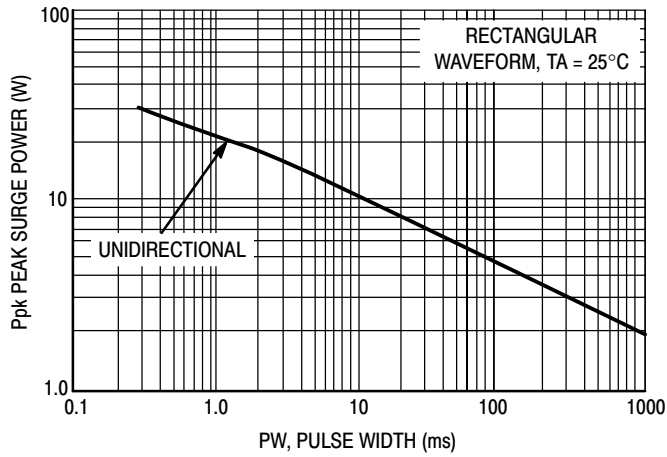


Figure 7. Maximum Non-Repetitive Surge Power, Ppk versus PW

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

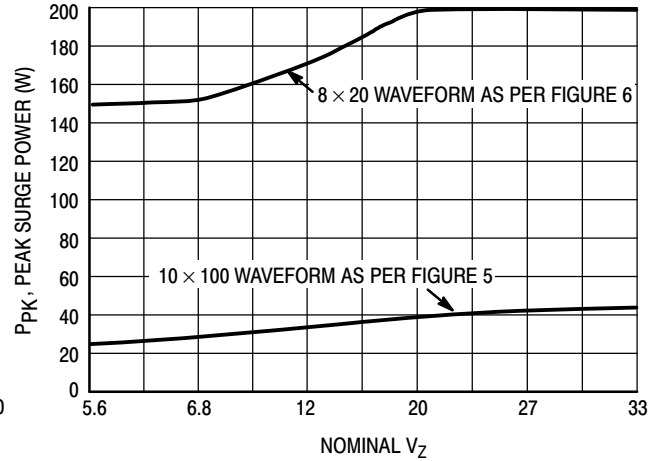


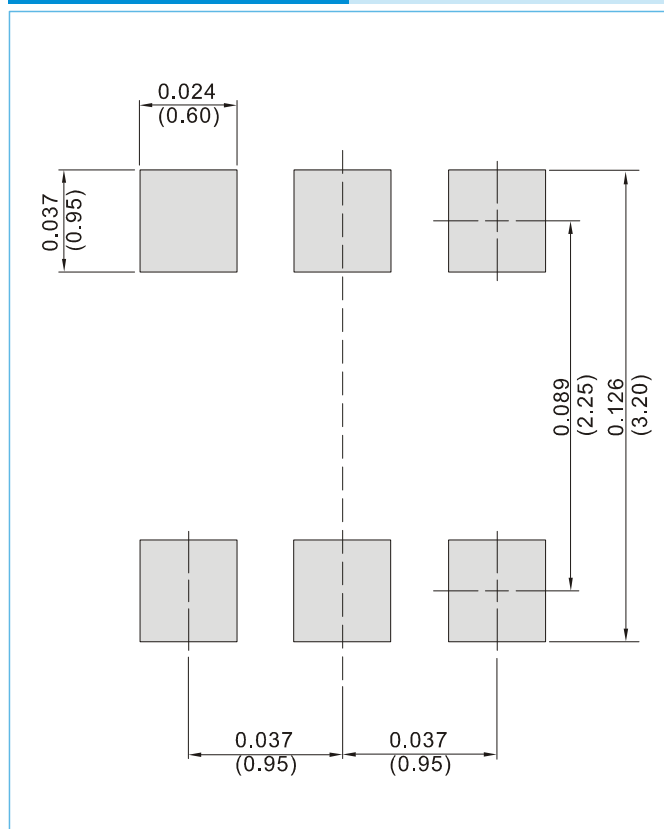
Figure 8. Typical Maximum Non-Repetitive Surge Power, Ppk versus V_{BR}

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MOUNTING PAD LAYOUT

SOT-23 6L

Unit : inch(mm)



ORDER INFORMATION

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



PJQA6V2

Part No_packing code_Version

PJQA6V2_R1_00001

PJQA6V2_R2_00001

PJQA6V2_S1_00001

PJQA6V2_S2_00001

For example :

RB500V-40_R2_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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