

LOW CAPACITANCE TVS/ZENER ARRAYS FOR ESD PROTECTION

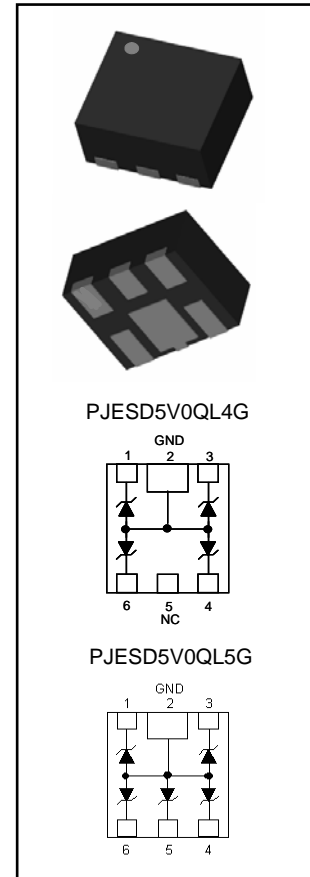
These 4 and 5 TVS/Zener Arrays have been designed to protect sensitive equipment against ESD in CMOS circuitry operating at 5V. These TVS arrays offers an integrated solution to protect 4 or 5 data lines in applications, where the board space is a premium, in a Quad Flat no-Lead package that only occupies an area of 1.8 sq mm.

SPECIFICATION FEATURES

- IEC61000-4-2 ESD 20kV Air, 15kV Contact Compliance
- Low Leakage Current, Maximum of 1μA at rated voltage
- Maximum Capacitance of 15pF per device at 0Vdc 1MHz
- Peak Power Dissipation of 20W under 8/20μs Waveform
- Quad Flat No Lead package QFN (1.2x1.5 sq mm, Height: 0.75mm)
- Lead Free Package 100% Tin Plating, Matte finish

APPLICATIONS

- Personal Digital Assistant (PDA)
- Digital Cameras
- Portable Instrumentation
- Mobile Phones and Accessories
- MP3 Players



MAXIMUM RATINGS (Per Device)

Rating	Symbol	Value	Units
Peak Pulse Power (8/20μs Waveform)	P_{PP}	20	W
Peak Pulse Current (8/20μs Waveform)	I_{PPM}	TBD	A
ESD Voltage (HBM Per MIL STD883C - Method 3015-6)	V_{ESD}	20	kV
Operating Temperature Range	T_J	-55 to +150	°C
Storage Temperature Range	T_{stg}	-55 to +150	°C

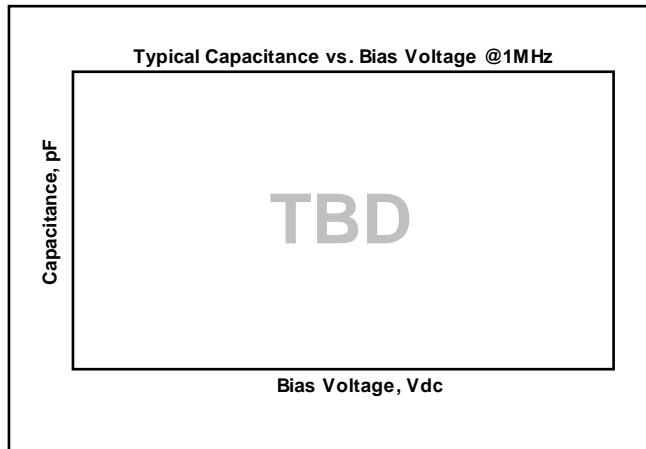
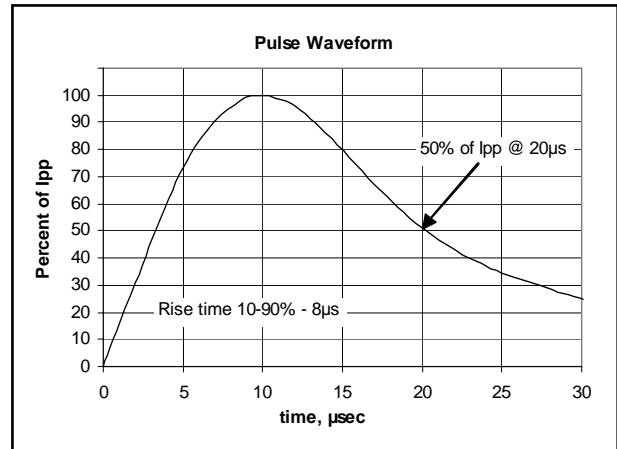
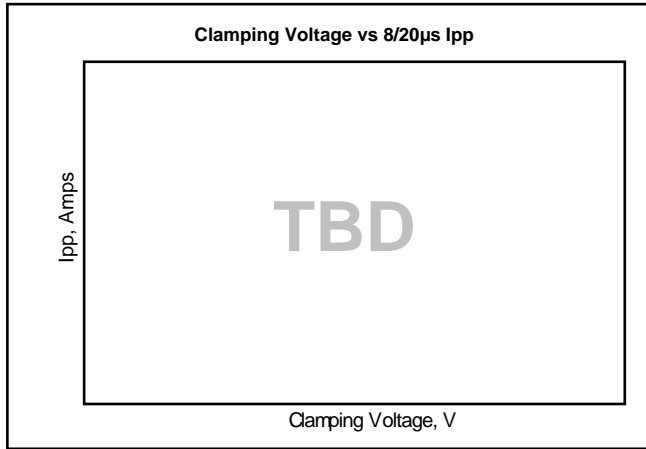
ELECTRICAL CHARACTERISTICS (Per Device) $T_j = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{WRM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR} = 1\text{mA}$	6			V
Reverse Leakage Current	I_R	$V_R = 5\text{V}$			1	μA
Clamping Voltage (8/20μs)	V_C	$I_{pp} = \text{TBD}$		TBD	TBD	V
Off State Junction Capacitance	C_j	0 Vdc Bias f = 1MHz between I/O lines and		TBD	15	pF



TYPICAL CHARACTERISTIC CURVES (Per Device) $T_j = 25^\circ\text{C}$

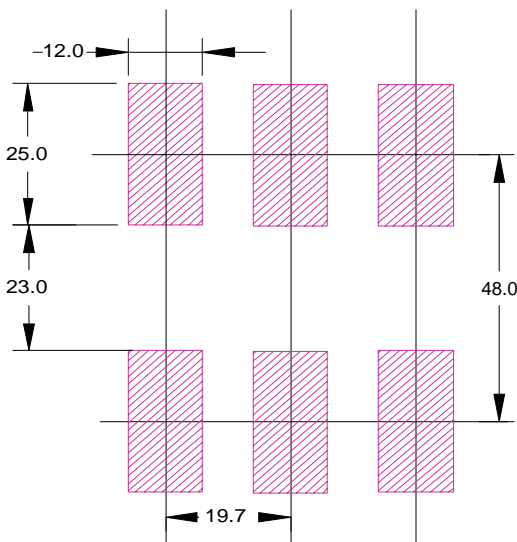
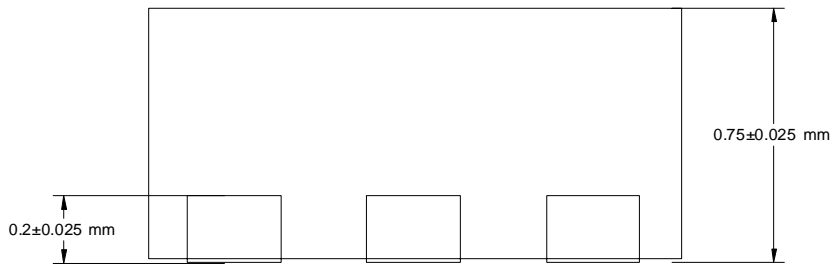
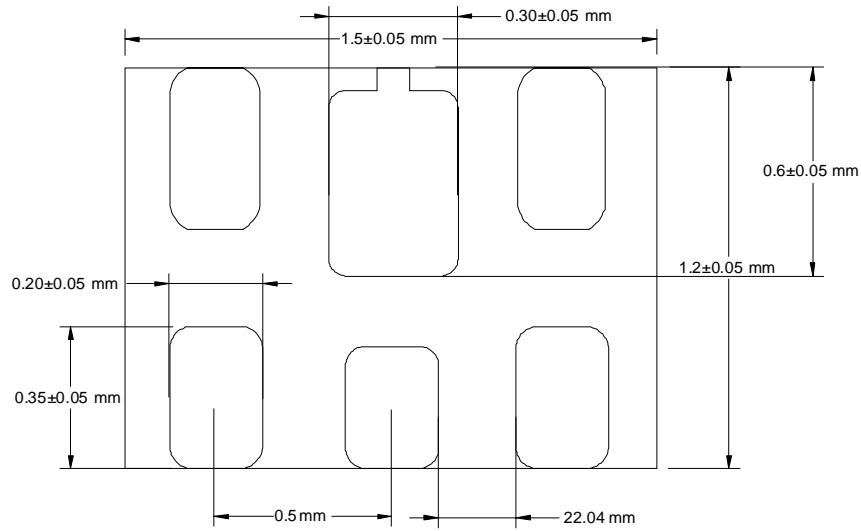
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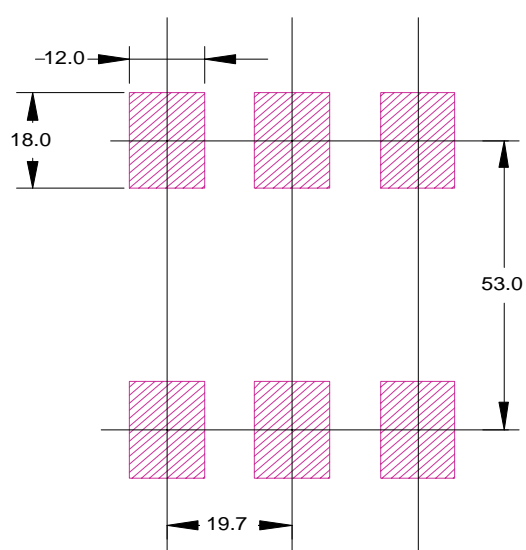


PACKAGE DIMENSIONS AND SUGGESTED PAD LAYOUT

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Suggested Pad Layout (in mils)



Alternate Pad Layout SOT666 (in mils)