

QUAD TVS/ZENER ARRAY FOR ESD PROTECTION

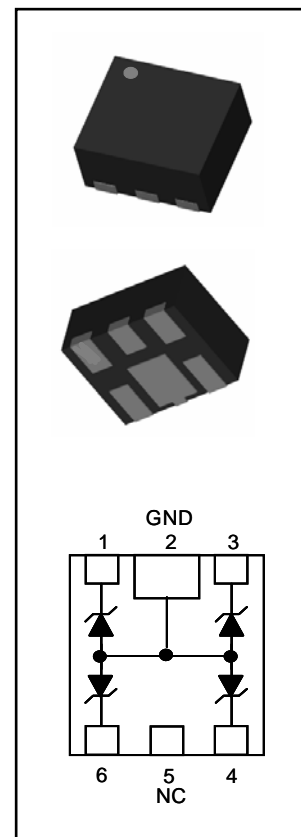
This Quad TVS/Zener Array family have been designed to protect sensitive equipment against ESD in CMOS circuitry operating at 5V. This TVS array offers an integrated solution to protect up to 4 data lines in applications, where the board space is a premium, in a Quad Flat no-Lead package that only occupies 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 35pF per device at 0Vdc 1MHz
- Peak Power Dissipation of 40W 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} | 40 | W |
| Peak Pulse Current (8/20μs Waveform) | I _{PPM} | 4.5 | A |
| ESD Voltage (HBM Per MIL STD883C - Method 3015-6) | V _{ESD} | 25 | kV |
| Operating Temperature Range | T _J | -55 to +150 | °C |
| Storage Temperature Range | T _{stg} | -55 to +150 | °C |

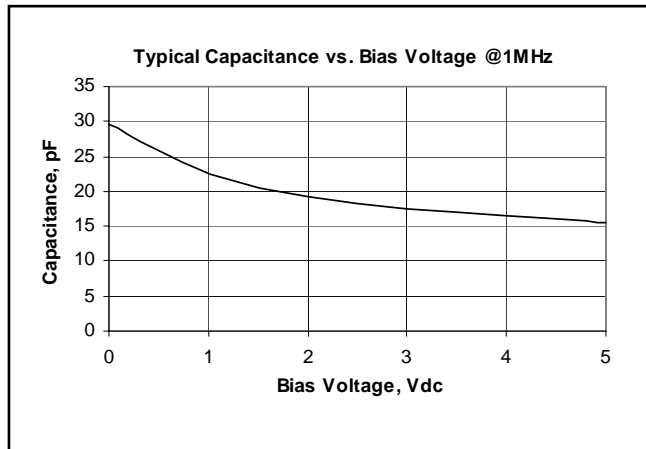
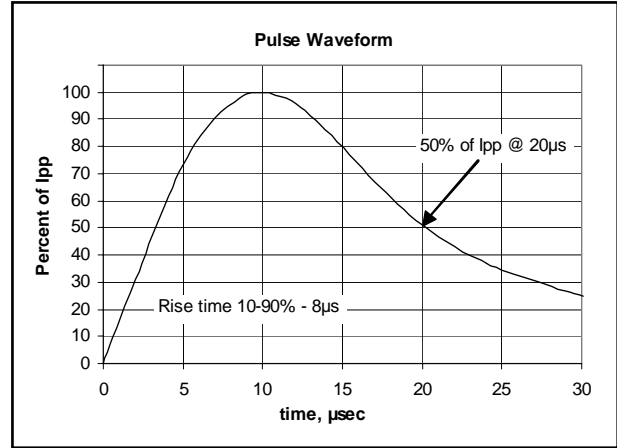
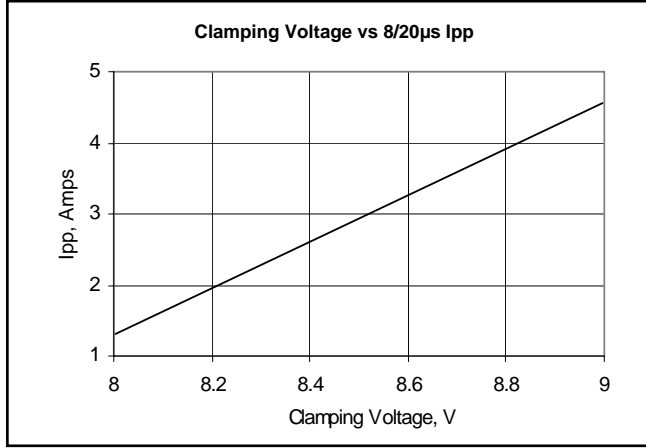
ELECTRICAL CHARACTERISTICS (Per Device) T_j = 25°C

| Parameter | Symbol | Conditions | Min | Typical | Max | Units |
|--------------------------------|------------------|---|-----|---------|-----|-------|
| Reverse Stand-Off Voltage | V _{WRM} | | | | 5 | V |
| Reverse Breakdown Voltage | V _{BR} | I _{BR} = 1mA | 6 | | | V |
| Reverse Leakage Current | I _R | V _R = 5V | | | 1 | μA |
| Clamping Voltage (8/20μs) | V _C | I _{pp} = 4A | | 8.81 | 9 | V |
| Off State Junction Capacitance | C _j | 0 Vdc Bias f = 1MHz between I/O lines and | | 30 | 35 | pF |



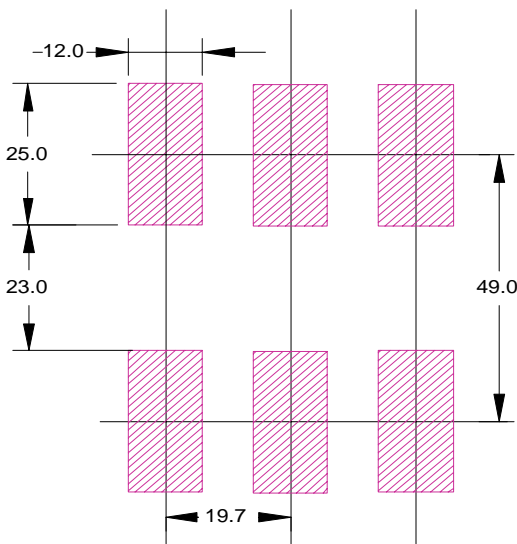
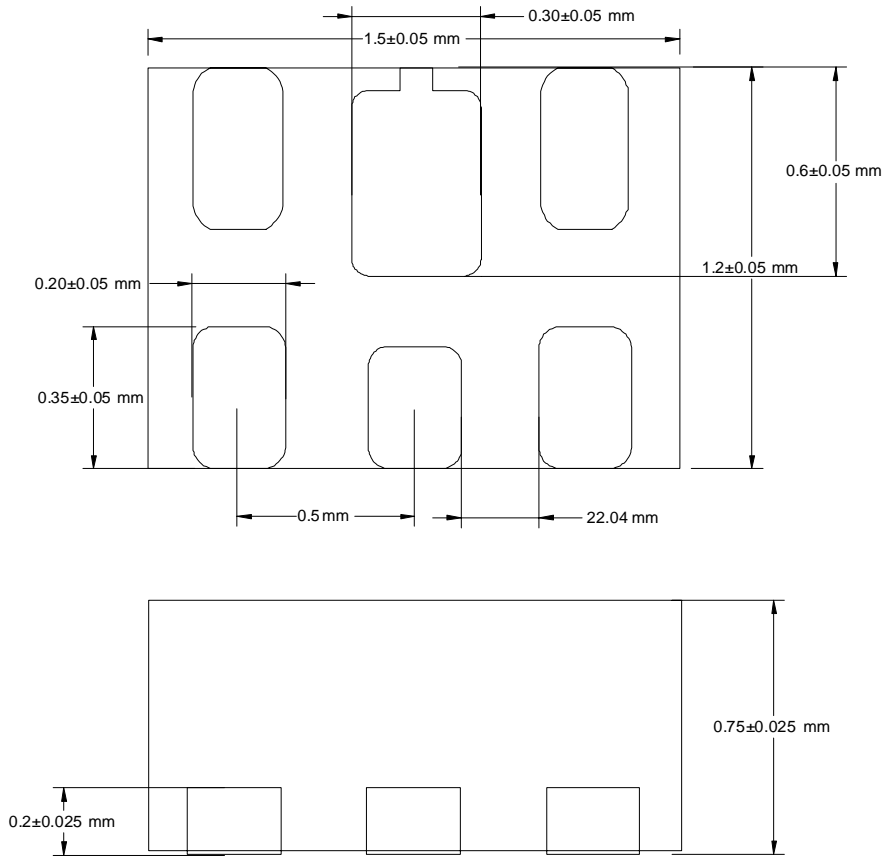
TYPICAL CHARACTERISTIC CURVES (Per Device) Tj = 25°C

PRELIMINARY

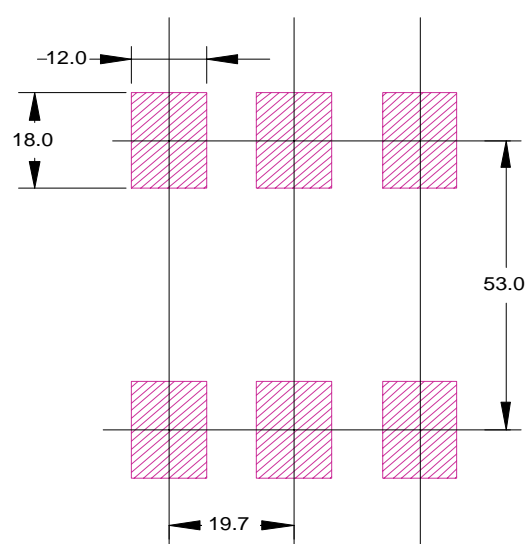


PACKAGE DIMENSIONS AND SUGGESTED PAD LAYOUT

PRELIMINARY



Suggested Pad Layout (in mils)



Alternate Pad Layout SOT666 (in mils)