

CMKTVS5-4**SURFACE MOUNT SILICON
LOW CAPACITANCE
QUAD TVS/DIODE ARRAY**
www.centrasemi.com
ULTRAmi™Specified by
STAND-OFF VOLTAGE**SOT-363 CASE****DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMKTVS5-4 is a 4-line TVS/Diode array packaged in an ULTRAmi™ surface mount case. With its low capacitance, this device was designed to protect four high speed data or transmission lines from over-voltage transients and ESD damage.

MARKING CODE: CVT4**FEATURES:**

- 15kV ESD protection
- Low capacitance
- Low clamping voltage
- Protects four I/O lines
- Protects supply voltage rail

APPLICATIONS:

- USB 2.0 Power and Data Line Protection
- HDMI Interface
- Digital Video Interface (DVI)
- Ethernet Ports

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$)

Input Voltage

ESD Voltage (IEC61000-4-2, Air)

Operating and Storage Junction Temperature

SYMBOL V_I V_{ESD} T_J, T_{stg}

5.5

15

-55 to +150

UNITS

V

kV

 $^\circ\text{C}$ **ELECTRICAL CHARACTERISTICS PER DIODE:** ($T_A=25^\circ\text{C}$)

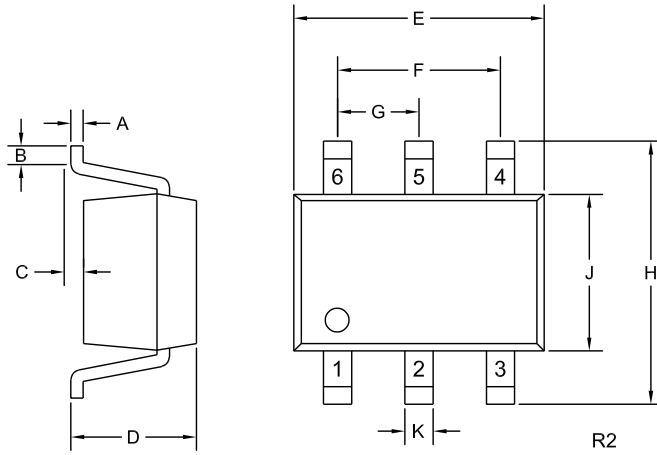
| Maximum Reverse Stand-Off Voltage | Minimum Reverse Breakdown Voltage pin 5 to pin 2 | | Maximum Reverse Leakage Current pin 5 to pin 2 | | Maximum Clamping Voltage 8x20 μs I/O to pin 2 | | Maximum Clamping Voltage 8x20 μs I/O to pin 2 | | Maximum Off State Junction Capacitance I/O to GND ($V_R=0, f=1.0\text{MHz}$) | Maximum Off State Junction Capacitance I/O to I/O ($V_R=0, f=1.0\text{MHz}$) | | | | | |
|-----------------------------------|---|-------|---|---------------|--|---|--|-------|--|--|-------|-----|----------|-------|-------|
| | V_{RWM} | V_Z | @ | I_Z | I_R | @ | V_R | V_C | @ | I_{PP} | V_C | @ | I_{PP} | C_J | C_J |
| V | V | | mA | μA | V | | V | V | | A | V | V | A | pF | pF |
| 5.0 | 6.0 | | 1.0 | 3.0 | 5.0 | | 14 | 1.0 | 23 | 5.0 | | 3.0 | | 1.5 | |

CMKTVS5-4

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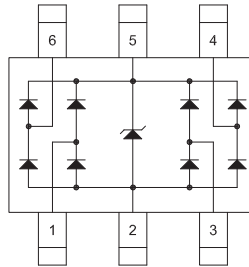
SOT-363 CASE - MECHANICAL OUTLINE



| SYMBOL | DIMENSIONS | | | |
|--------|------------|-------|--------|-------------|
| | | | INCHES | MILLIMETERS |
| | MIN | MAX | MIN | MAX |
| A | 0.004 | 0.010 | 0.10 | 0.25 |
| B | 0.005 | - | 0.12 | - |
| C | 0.000 | 0.004 | 0.00 | 0.10 |
| D | 0.031 | 0.043 | 0.80 | 1.10 |
| E | 0.071 | 0.087 | 1.80 | 2.20 |
| F | 0.051 | | 1.30 | |
| G | 0.026 | | 0.65 | |
| H | 0.075 | 0.091 | 1.90 | 2.30 |
| J | 0.043 | 0.055 | 1.10 | 1.40 |
| K | 0.006 | 0.012 | 0.15 | 0.30 |

SOT-363 (REV: R2)

PIN CONFIGURATION

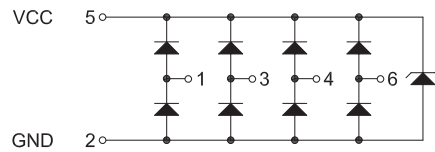


LEAD CODE:

- 1) I/O
- 2) Ground
- 3) I/O
- 4) I/O
- 5) Supply Voltage
- 6) I/O

MARKING CODE: CVT4

SCHEMATIC



R2 (2-November 2012)