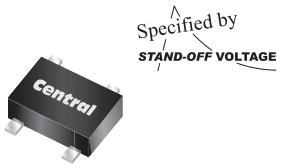
CMYTVS5-2

SURFACE MOUNT SILICON LOW CAPACITANCE 5 VOLT, 2-LINE TVS/DIODE ARRAY



SOT-543 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMYTVS5-2 is a 2-line TVS/Diode array packaged in the SOT-543 surface mount case. This device, with its low capacitance, was designed to protect two high speed data or transmission lines from over-voltage transients and ESD damage.

MARKING CODE: C52

APPLICATIONS:

- USB 2.0 power and data line protection
- HDMI
- DVI
- Ethernet ports

FEATURES:

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

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Peak Power Dissipation (8x20μs)	P_{PK}	60	W
ESD Voltage (IEC61000-4-2, Air)	V_{ESD}	15	kV
Operating and Storage Junction Temperature	T_J, T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS PER DIODE: (T_A=25°C)

Maximum Reverse Stand-Off Voltage	Minimum Reverse Breakdown Voltage pin 4 to pin 1		Maximum Reverse Leakage Current pin 4 to pin 1		Maximum Clamping Voltage I/O to pin 1 (8x20μs)		Maximum Clamping Voltage I/O to pin 1 (8x20μs)		Off State Junction Capacitance I/O to GND (V_R=0, f=1.0MHz)		Off State Junction Capacitance I/O to I/O (V_R=0, f=1.0MHz)	
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	A	V	A	TYP pF	MAX pF	TYP pF	MAX pF
5.0	6.2	1.0	1.0	5.0	9.0	1.0	12	5.0	0.9	1.2	0.5	0.6

R1 (4-January 2013)

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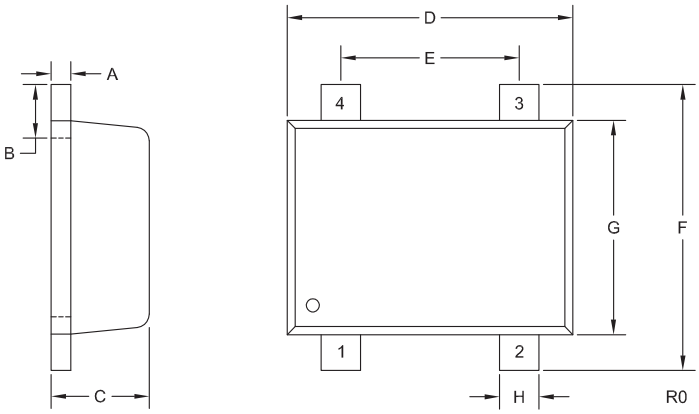
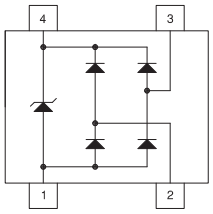
SOT-543 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.002	0.007	0.07	0.17
B	0.004	0.012	0.10	0.30
C	0.019	0.024	0.50	0.60
D	0.059	0.067	1.50	1.70
E	0.035	0.044	0.90	1.10
F	0.059	0.067	1.50	1.70
G	0.044	0.052	1.10	1.30
H	0.006	0.011	0.17	0.27

SOT-543 (REV: R0)

PIN CONFIGURATION



LEAD CODE:
1) Ground
2) I/O
3) I/O
4) Supply Voltage (V_{CC})

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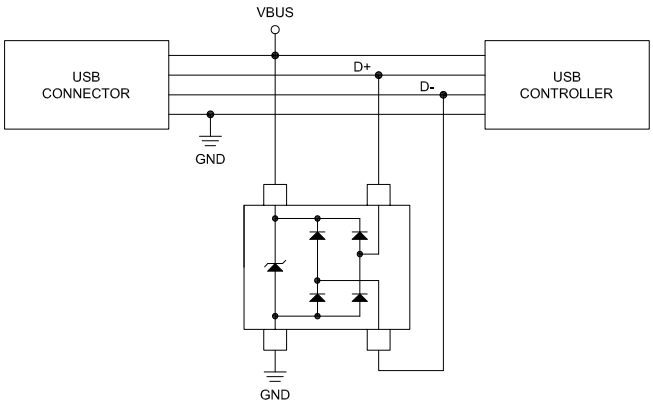
TYPICAL APPLICATION - USB 2.0



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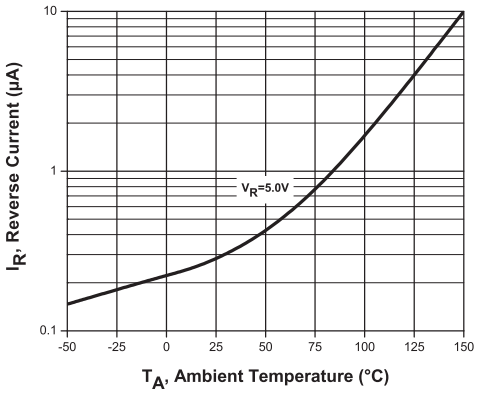
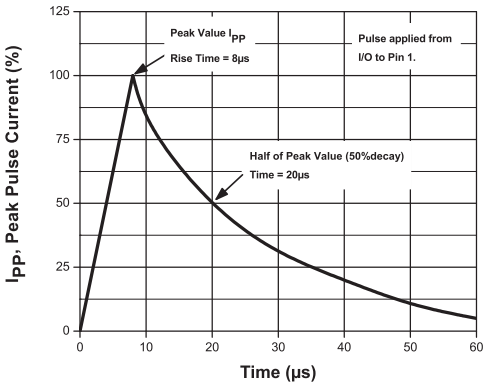
TYPICAL ELECTRICAL CHARACTERISTICS

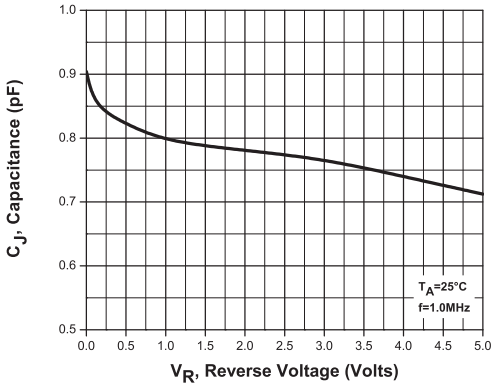
Typical Reverse Leakage Current Pin 4 to Pin 1



8x20μs Surge Current Waveform



Typical Capacitance I/O to GND



Typical Capacitance I/O to I/O