

CMNTVS5V0
SURFACE MOUNT SILICON
UNI-DIRECTIONAL
5.0 VOLT, 4-LINE
TVS ARRAY



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMNTVS5V0 is a 4-line Transient Voltage Suppressor array in the space saving SOT-953 surface mount package. This device is designed to protect sensitive equipment against ESD damage.

MARKING CODE: HH



SOT-953 CASE

APPLICATIONS:

- User interface protection
- Data line protection
- Voltage rail protection
- Voltage clamping

FEATURES:

- Small, 1.0 x 0.8 mm, SOT-953 surface mount package
- Low capacitance
- Low leakage current
- 4-Line common anode array

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

Peak Power Dissipation (8x20 μs)
 Electrical Fast Transient (IEC 61000-4-4) (5x50ns)
 ESD Voltage (IEC 61000-4-2, Air)
 ESD Voltage (IEC 61000-4-2, Contact)
 Operating and Storage Junction Temperature

SYMBOL

SYMBOL	UNITS
P_{PK}	W
EFT	A
V_{ESD}	kV
V_{ESD}	kV
T_J, T_{stg}	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A=25^\circ\text{C}$) $V_F=1.2\text{V MAX @ } I_F=10\text{mA}$

Maximum Reverse Stand-Off Voltage V_{RWM}	Reverse Breakdown Voltage $V_{BR @ 1.0\text{mA}}$			Reverse Leakage Current $I_R @ V_{RWM}$		Maximum Clamping Voltage (8x20 μs) $V_C @ I_{PP}$		Typical TLP Clamping Voltage (Note 1) $V_{CL @ I_{PP}}$		Typical Dynamic Resistance (Note 1) R_{DYN}	Junction Capacitance @ 0V Bias C_J		Typical Junction Capacitance @ 3.3V Bias C_J
	V	MIN V	NOM V	MAX V	TYP nA	MAX nA	V	A	V	A	Ω	TYP pF	MAX pF
5.0	6.0	7.1	8.0	5.0	250	12.5	2.0	12	4.3	1.45	9.5	10	5.5
								20	9.8				

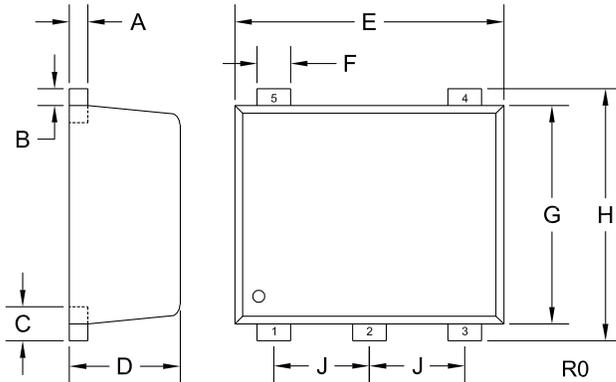
Note 1: Transmission Line Pulse (TLP) conditions: $Z_0=50\Omega, t_p=100\text{ns}$

CMNTVS5V0

SURFACE MOUNT SILICON
UNI-DIRECTIONAL
5.0 VOLT, 4-LINE
TVS ARRAY



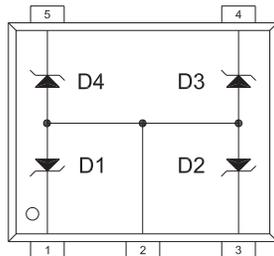
SOT-953 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.002	0.006	0.050	0.150
B	0.002	0.006	0.050	0.150
C	0.005	0.007	0.125	0.175
D	0.016	0.020	0.400	0.500
E	0.037	0.041	0.950	1.050
F	0.004	0.008	0.100	0.200
G	0.030	0.033	0.750	0.850
H	0.037	0.041	0.950	1.050
J	0.014		0.350	

SOT-953 (REV: R0)

PIN CONFIGURATION



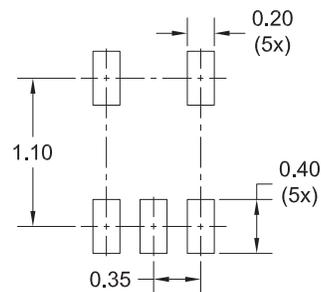
LEAD CODE:

- 1) Cathode D1
- 2) Anode D1, D2, D3, D4
- 3) Cathode D2
- 4) Cathode D3
- 5) Cathode D4

MARKING CODE: HH

SUGGESTED MOUNTING PADS

(Dimensions in mm)



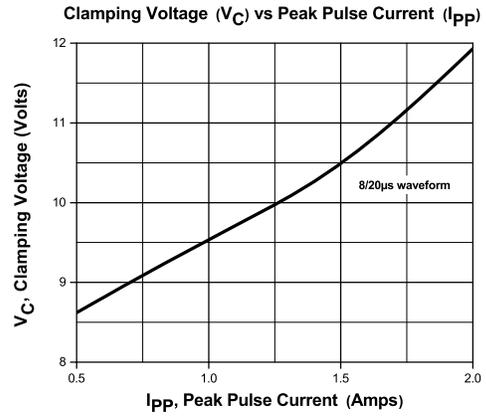
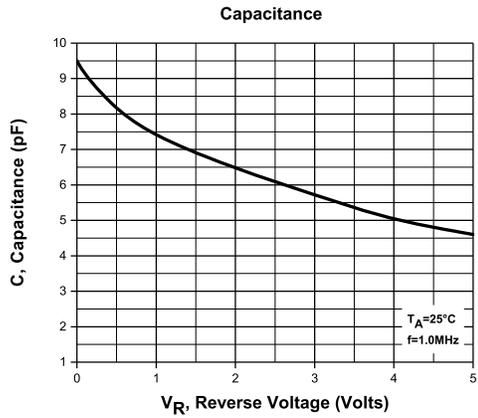
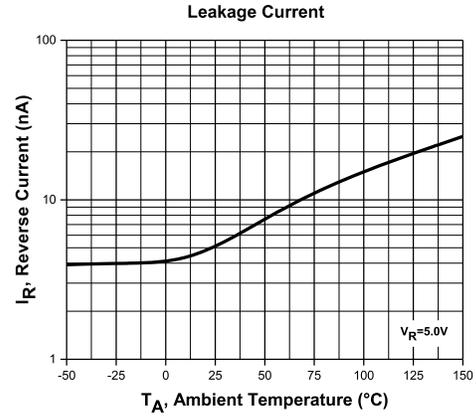
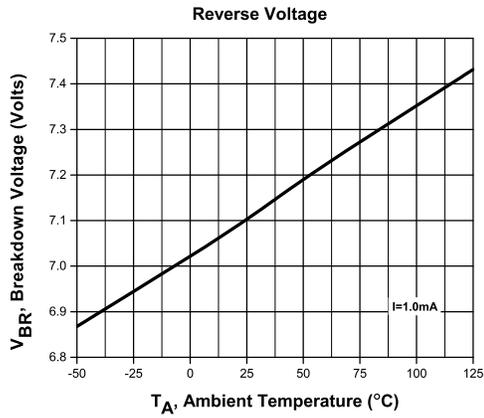
R0

R5 (18-June 2019)

CMNTVS5V0
SURFACE MOUNT SILICON
UNI-DIRECTIONAL
5.0 VOLT, 4-LINE
TVS ARRAY



TYPICAL ELECTRICAL CHARACTERISTICS

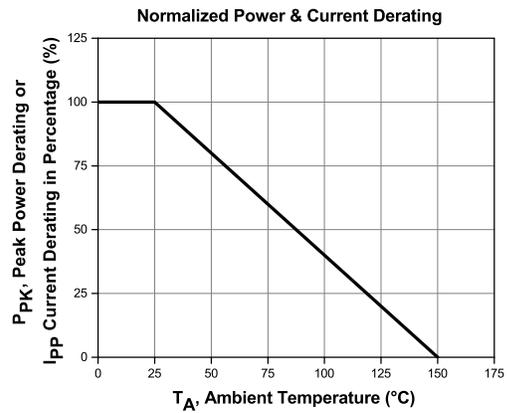
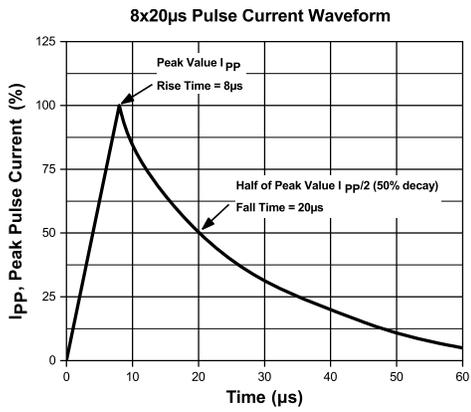
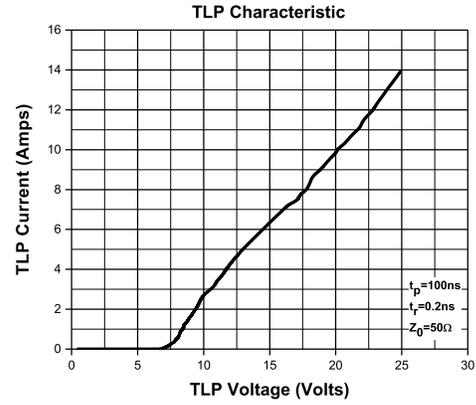
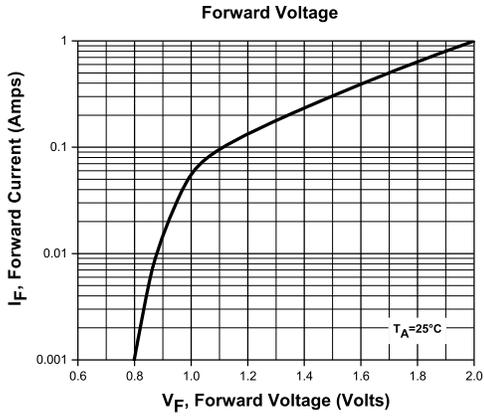


R5 (18-June 2019)

CMNTVS5V0
SURFACE MOUNT SILICON
UNI-DIRECTIONAL
5.0 VOLT, 4-LINE
TVS ARRAY



TYPICAL ELECTRICAL CHARACTERISTICS



R5 (18-June 2019)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms