

CMNTVS12V
SURFACE MOUNT SILICON
UNI-DIRECTIONAL
12 VOLT QUAD TVS ARRAY



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMNTVS12V is a 4-line TVS arrays in a space saving SOT-953 surface mount package. This device is designed to protect sensitive equipment against ESD damage.

MARKING CODE: CY



SOT-953 CASE

- Device is *Halogen Free* by design

APPLICATIONS:

- PDAs
- Memory Card Ports
- Mobile Phones
- Instrumentation

FEATURES:

- Small, 1.0 x 0.8mm, SOT-953 Surface Mount Package
- Low Capacitance
- Low Leakage Current
- 4-Line 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

P_{PK} 18
 EFT 40
 V_{ESD} 8.0
 V_{ESD} 8.0
 T_J, T_{stg} -55 to +150

UNITS

W
 A
 kV
 kV
 $^\circ\text{C}$

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

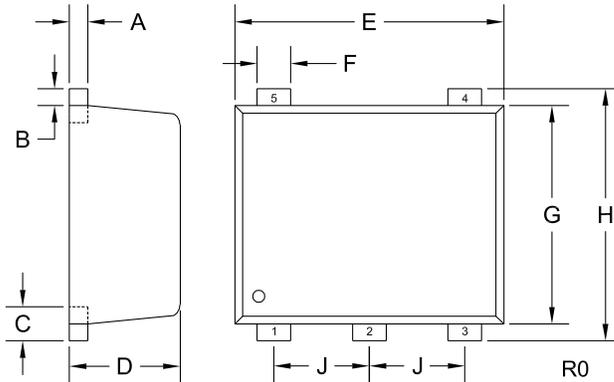
Reverse Breakdown Voltage $V_{BR} @ 5.0\text{mA}$			Maximum Reverse Leakage Current $I_R @ V_{RWM}$		Maximum Clamping Voltage (8x20 μs) $V_C @ I_{PP}$		Typical TLP Clamping Voltage (Note 1) $V_{CL} @ I_{PP}$		Typical Dynamic Resistance (Note 1) R_{DYN}	Maximum Junction Capacitance @ 0V Bias C_J	Maximum Junction Capacitance @ 3V Bias C_J
MIN V	NOM V	MAX V	μA	V	V	A	V	A	Ω	pF	pF
11.4	12.0	12.7	0.5	9.0	18	1.0	20	3.5	2.56	10	6.0
							30	7.4			

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

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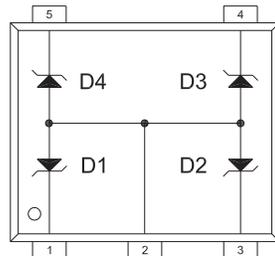
SOT-953 CASE - MECHANICAL OUTLINE



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



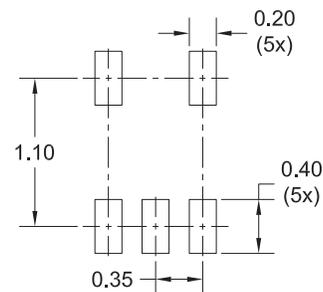
LEAD CODE:

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

MARKING CODE: CY

SUGGESTED MOUNTING PADS

(Dimensions in mm)



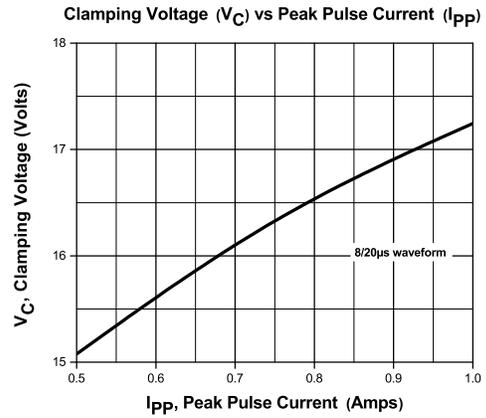
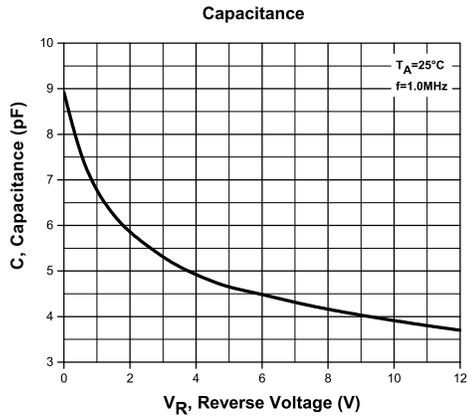
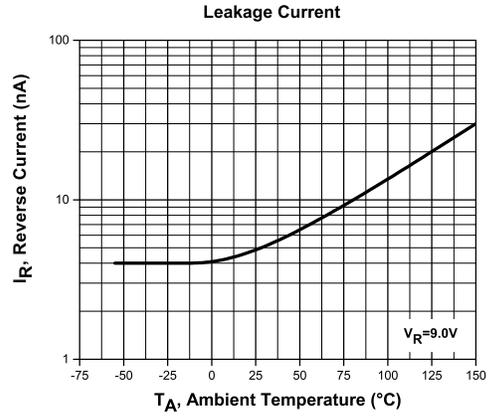
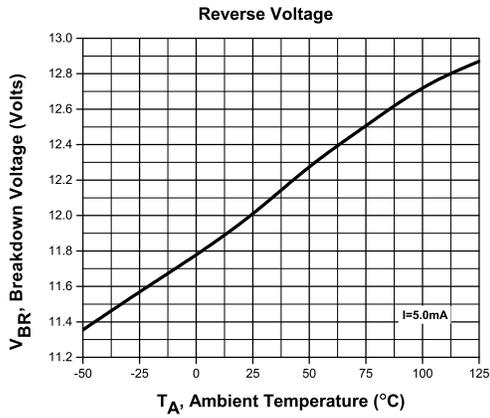
R0

R5 (29-October 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS

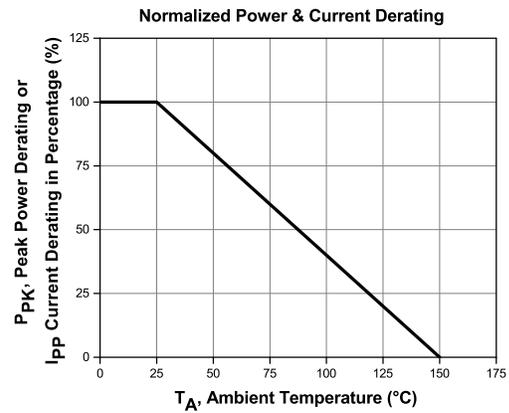
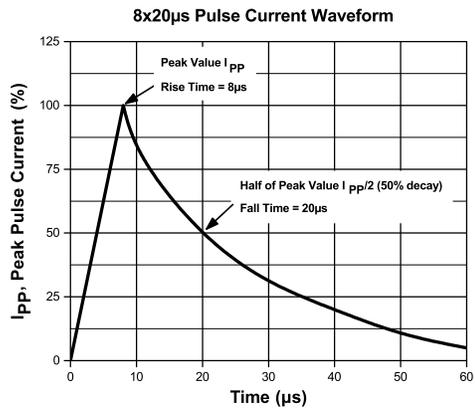
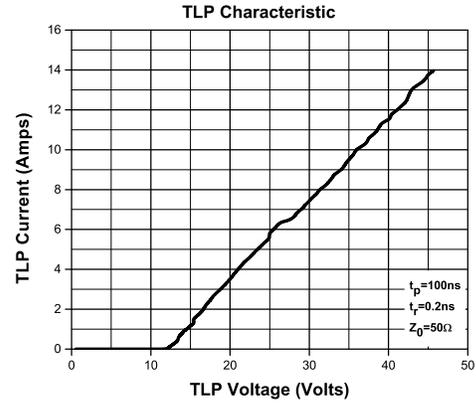
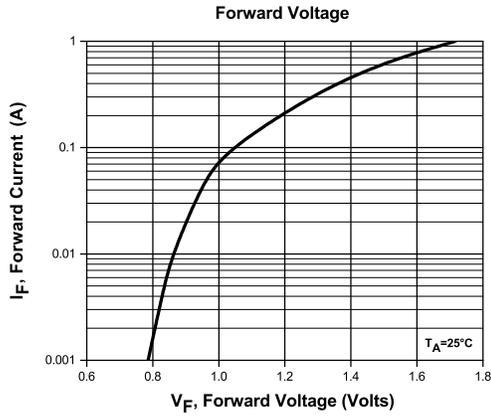


R5 (29-October 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



R5 (29-October 2015)

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

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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



<https://www.centalsemi.com>

Product End of Life Notification

PDN ID:	PDN01272
Notification Date:	11/21/24
Last Buy Date:	5/21/25
Last Shipment Date	11/21/25

Summary: All devices manufactured in the SOT-953 package are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Portfolio Management. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.**

Central Part Number	Suggested Replacement
CMNDM7001 BK	N/A
CMNDM7001 TR	N/A
CMNDM8001 BK	N/A
CMNDM8001 TR	N/A
CMNTVS12V BK	N/A
CMNTVS12V TR	N/A
CMNTVS5V0 BK	N/A
CMNTVS5V0 TR	N/A
CMNT3904E BK	N/A
CMNT3904E TR	N/A
CMNT3906E BK	N/A
CMNT3906E TR	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. If you would like assistance, please visit <https://my.centalsemi.com/submit-inquiry?type=ER> to submit an online inquiry.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.