

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

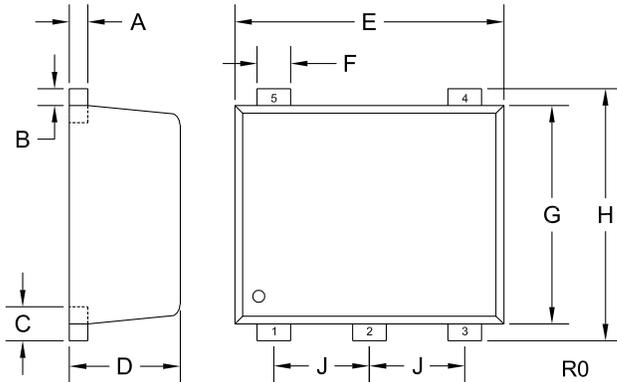
Reverse Breakdown Voltage $V_{BR} @ 5.0\text{mA}$			Maximum Reverse Leakage Current $I_R @ V_{RWM}$		Maximum Clamping Voltage (8x20 μs) $V_C @ I_{PP}$		Typical TLP Clamping Voltage (Note 1) $V_{CL} @ I_{PP}$		Typical Dynamic Resistance (Note 1) R_{DYN}	Maximum Junction Capacitance @ 0V Bias C_J	Maximum 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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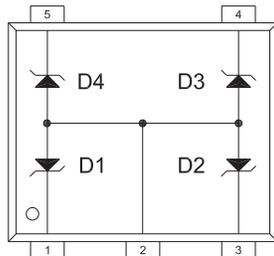
SOT-953 CASE - MECHANICAL OUTLINE



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



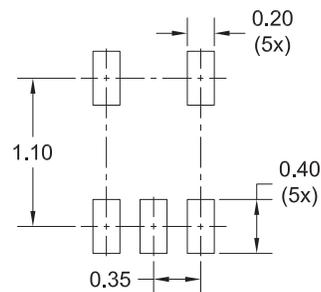
LEAD CODE:

- 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)



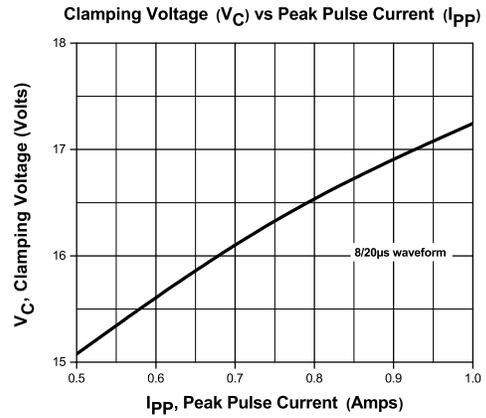
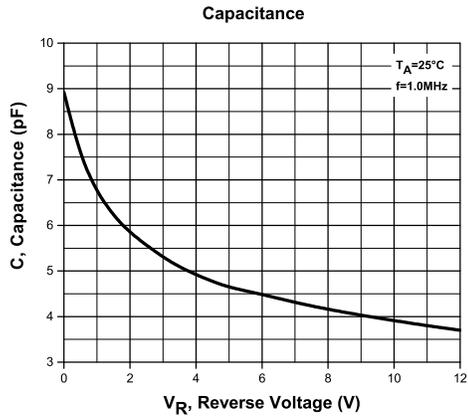
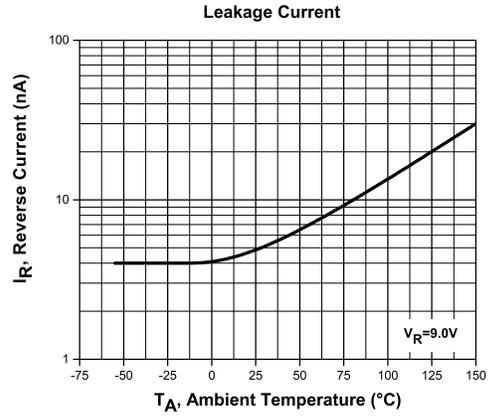
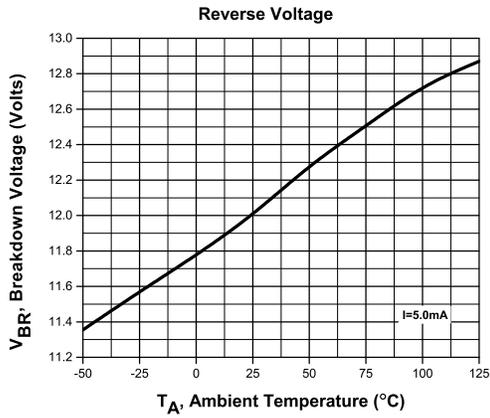
R0

R5 (29-October 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS

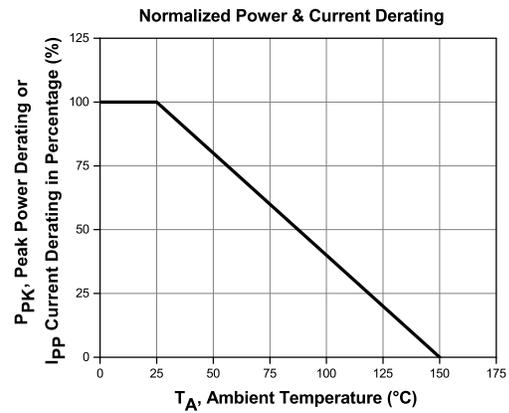
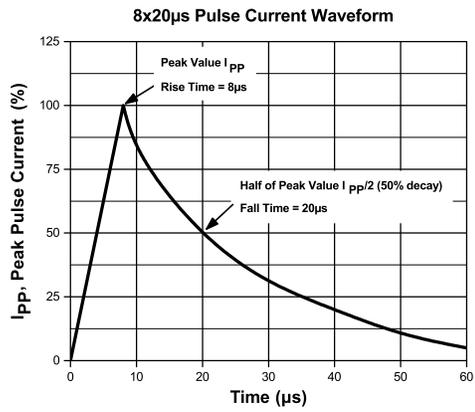
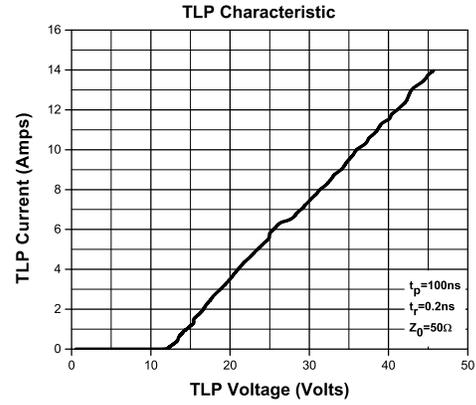
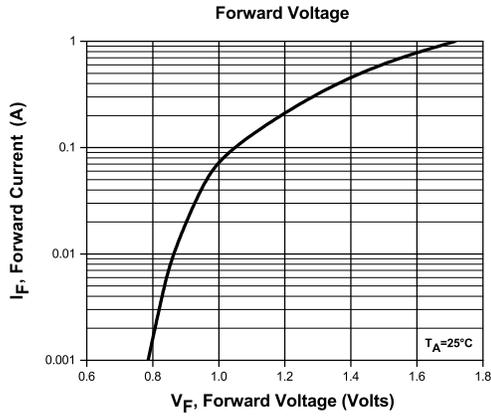


R5 (29-October 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



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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

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