

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)
 ESD Voltage (IEC 61000-4-2, Air)
 ESD Voltage (IEC 61000-4-2, Contact)
 Operating and Storage Junction Temperature

SYMBOL

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

UNITS

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

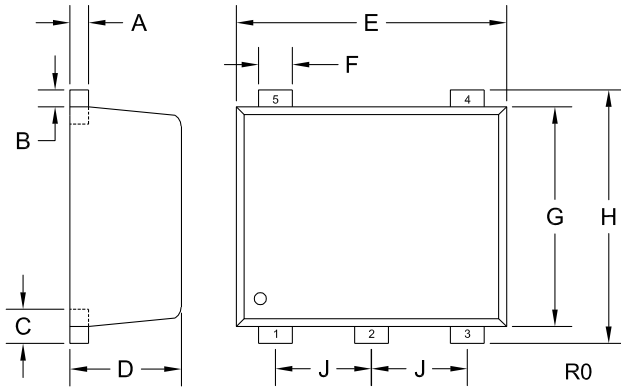
ELECTRICAL CHARACTERISTICS PER DIODE: ($T_A=25^\circ\text{C}$)

Breakdown Voltage V_{BR} @ 5.0mA			Maximum Leakage Current I_{RWM} @ V_{RWM}		Maximum Clamping Voltage V_C @ I_{PP}		Maximum Capacitance @ 0V Bias	Maximum Capacitance @ 3V Bias
MIN V	NOM V	MAX V	μA	V	V	A	pF	pF
11.4	12.0	12.7	0.5	9.0	18	1.0	10	6.0

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



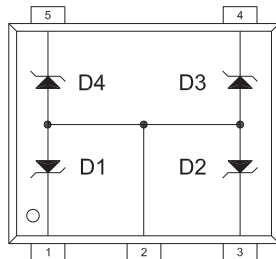
SOT-953 CASE - MECHANICAL OUTLINE



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



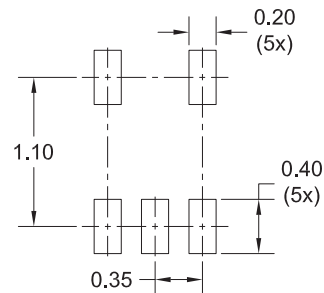
LEAD CODE:

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

MARKING CODE: CY

SUGGESTED MOUNTING PADS

(Dimensions in mm)



R0

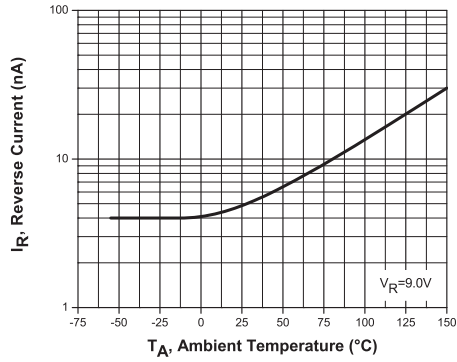
R4 (6-April 2015)

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

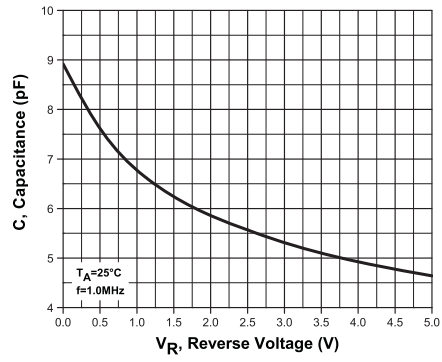


TYPICAL ELECTRICAL CHARACTERISTICS

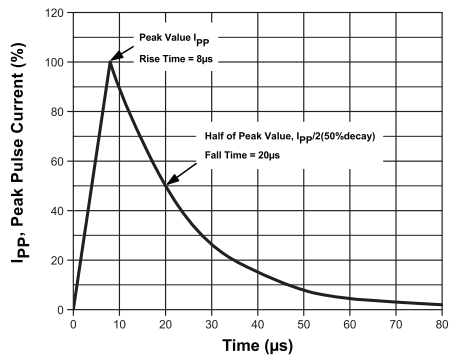
Leakage Current



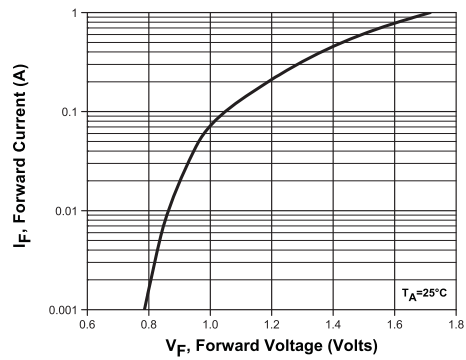
Capacitance



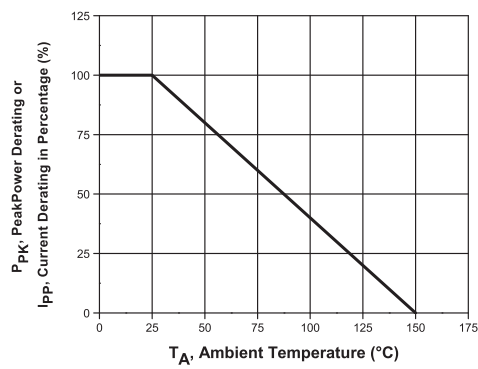
8 x 20 μ s Pulse Waveform



Forward Voltage



Normalized Power & Current Derating



R4 (6-April 2015)

CMNTVS12V

SURFACE MOUNT SILICON
UNI-DIRECTIONAL
12 VOLT QUAD TVS ARRAY



SERVICES

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development/ Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

LIMITATIONS AND DAMAGES DISCLAIMER: In no event shall Central be liable for any collateral, indirect, punitive, incidental, consequential, or exemplary damages in connection with or arising out of a purchase order or contract or the use of products provided hereunder, regardless of whether Central has been advised of the possibility of such damages. Excluded damages shall include, but not be restricted to: cost of removal or reinstallation, rework, ancillary costs to the procurement of substitute products, loss of profits, loss of savings, loss of use, loss of data, or business interruption. No claim, suit, or action shall be brought against Central more than two (2) years after the related cause of action has occurred.

In no event shall Central's aggregate liability from any warranty, indemnity, or other obligation arising out of or in connection with a purchase order or contract, or any use of any Central product provided hereunder, exceed the total amount paid to Central for the specific products sold under a purchase order or contract with respect to which losses or damages are claimed. The existence of more than one (1) claim against the specific products sold to Buyer under a purchase order or contract shall not enlarge or extend this limit.

Buyer understands and agrees that the foregoing liability limitations are essential elements of a purchase order or contract and that in the absence of such limitations, the material and economic terms of the purchase order or contract would be substantially different.

R4 (6-April 2015)