

CMATVS3V3
CMATVS5V0

**SURFACE MOUNT SILICON
TRANSIENT VOLTAGE SUPPRESSORS**



SOD-923 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMATVS3V3 Series types are Low Leakage, Fast Response TVSs packaged in a space saving SOD-923 surface mount package. These devices are designed to protect sensitive equipment against ESD damage.

**MARKING CODES: CMATVS3V3: E
CMATVS5V0: F**

APPLICATIONS:

- PDAs
- Memory Card Ports
- Mobile Phones
- Instrumentation

FEATURES:

- Small, 1.0 x 0.6 x 0.4mm, SOD-923 Surface Mount Package
- Low Leakage Current

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}
 V_{ESD}
 V_{ESD}
 T_J, T_{stg}

UNITS

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

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$) $V_F=0.9\text{V MAX @ } I_F=10\text{mA}$ (for all types)

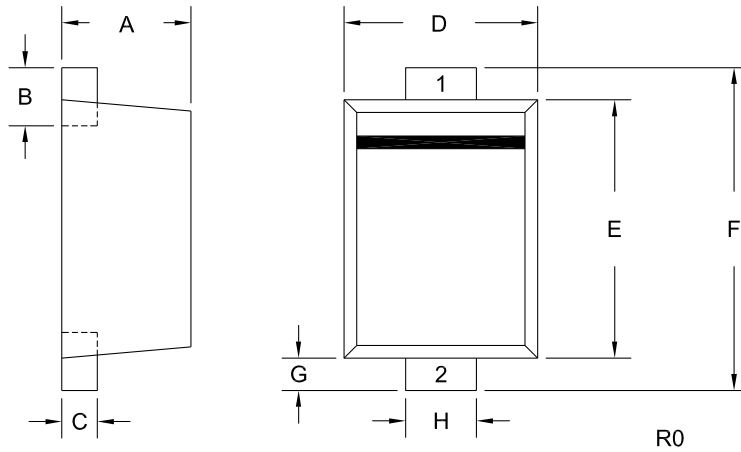
Type	Maximum Reverse Stand-off Voltage	Minimum Breakdown Voltage	Test Current	Maximum Reverse Leakage Current	Maximum Clamping Voltage	Peak Pulse Current	Typical Capacitance @ 0V Bias
	V_{RWM}	$V_{BR @ I_T}$	I_T	$I_R @ V_{RWM}$	$V_C @ I_{PP}$	I_{PP}	C
	V	V	mA	μA	V	A	pF
CMATVS3V3	3.3	5.0	1.0	2.5	11	7.0	45
CMATVS5V0	5.0	6.2	1.0	1.0	12.3	7.0	40

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SOD-923 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Cathode
- 2) Anode

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DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.015	0.016	0.39	0.41
B	0.004	0.010	0.10	0.26
C	0.003	0.006	0.08	0.14
D	0.022	0.026	0.55	0.65
E	0.030	0.033	0.75	0.85
F	0.035	0.043	0.90	1.10
G	0.002	0.006	0.05	0.15
H	0.007	0.011	0.17	0.27

SOD-923 (REV: R0)

R5 (2-April 2015)

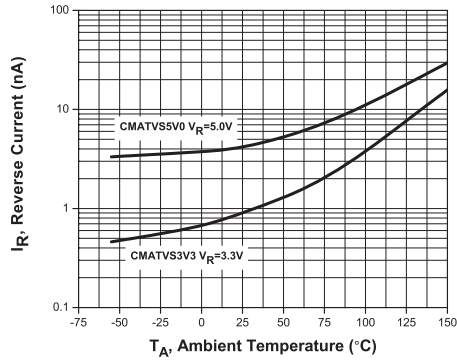
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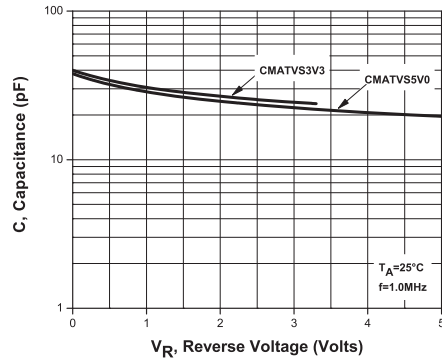


TYPICAL ELECTRICAL CHARACTERISTICS

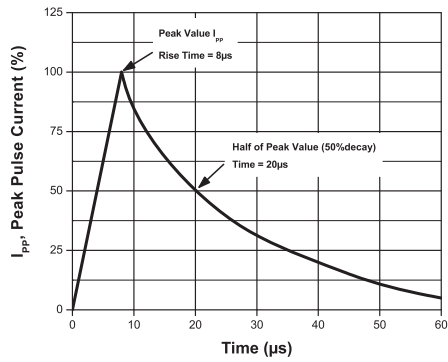
Leakage Current



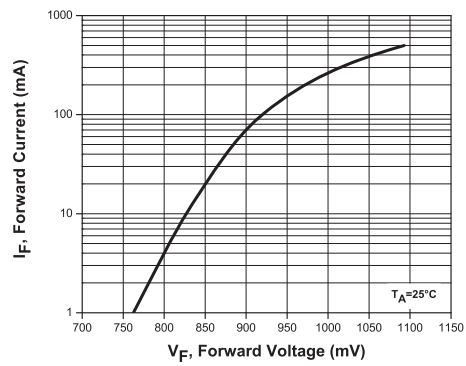
Capacitance



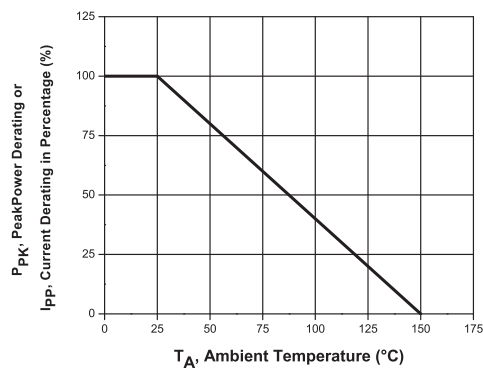
Non-Repetitive Pulse Waveform



Forward Voltage



Normalized Power & Current Derating



R5 (2-April 2015)

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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

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R5 (2-April 2015)