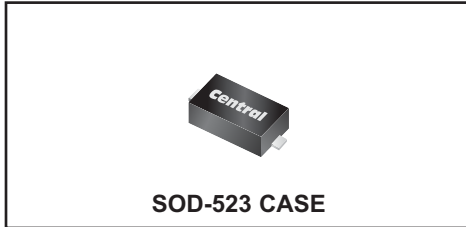


CMO5V0LC

**SURFACE MOUNT SILICON  
UNI-DIRECTIONAL  
TRANSIENT VOLTAGE SUPPRESSOR**



[www.centrasemi.com](http://www.centrasemi.com)



**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMO5V0LC is an ultra low capacitance, low leakage, fast response TVS in the space saving SOD-523 surface mount package. This device is designed to protect sensitive equipment against ESD damage.

**MARKING CODE: DD**

**APPLICATIONS:**

- High speed data line protection
- User interface protection
- Charging/power port protection

**FEATURES:**

- Space saving SOD-523 package
- Ultra low capacitance
- Low leakage current

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

Peak Power Dissipation (8x20 $\mu\text{s}$ )  
 Electrical Fast Transient (IEC 61000-4-4) (5x50ns)  
 ESD Voltage (IEC 61000-4-2, Air)  
 ESD Voltage (IEC 61000-4-2, Contact)  
 Operating Junction Temperature  
 Storage Temperature

**SYMBOL**

$P_{PK}$  12  
 $EFT$  40  
 $V_{ESD}$  15  
 $V_{ESD}$  10  
 $T_J$  -55 to +125  
 $T_{stg}$  -55 to +150


**UNITS**

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

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$ )  $V_F=1.0\text{V MAX @ } I_F=10\text{mA}$

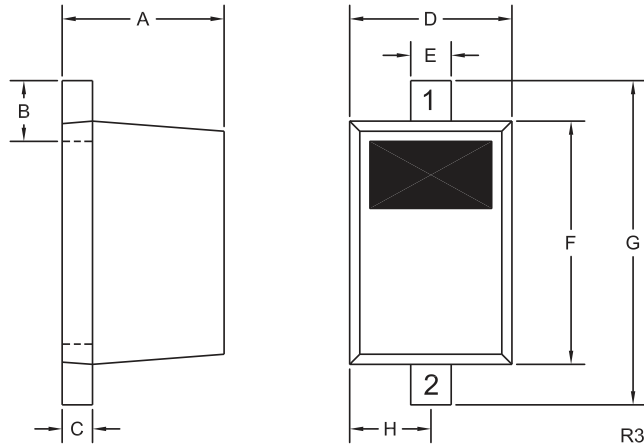
Maximum Reverse Stand-off Voltage $V_{RWM}$	Minimum Breakdown Voltage $V_{BR @ I_T}$	Test Current $I_T$	Maximum Reverse Leakage Current $I_R @ V_{RWM}$	Maximum Clamping Voltage (8x20 $\mu\text{s}$ ) $V_C @ I_{PP}$		Typical TLP Clamping Voltage (Note 1) $V_{CL @ I_{PP}}$		Typical Dynamic Resistance (Note 1) $R_{DYN}$	Maximum Junction Capacitance @ 0V Bias $C_J$
				V	A	V	A		
V	V	mA	$\mu\text{A}$	V	A	V	A	$\Omega$	pF
5.0	6.0	1.0	1.0	12	1.0	5.0 10	4.0 9.2	0.96	0.9

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

  
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**SOD-523 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**


- 1) Cathode
- 2) Anode

**MARKING CODE: DD**

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.020	0.031	0.50	0.80
B	0.008	0.016	0.20	0.40
C	0.002	0.008	0.05	0.20
D	0.028	0.035	0.70	0.90
E	0.008	0.014	0.20	0.35
F	0.039	0.055	1.00	1.40
G	0.055	0.071	1.40	1.80
H	0.016		0.40	

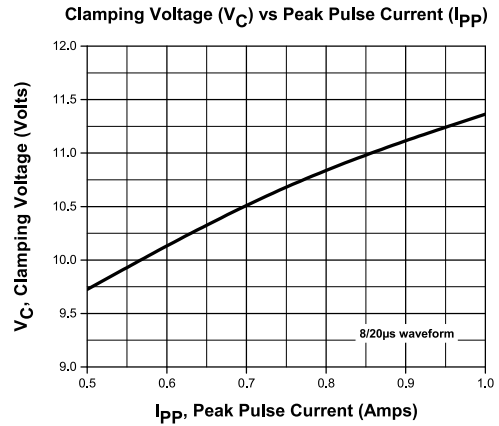
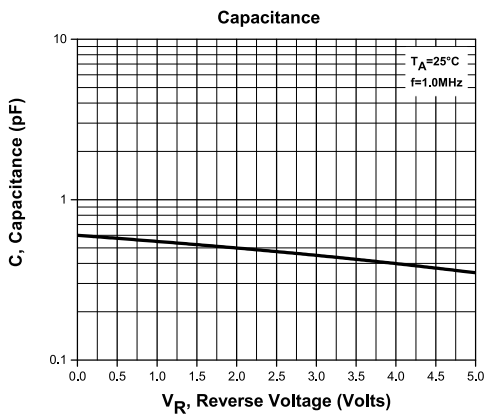
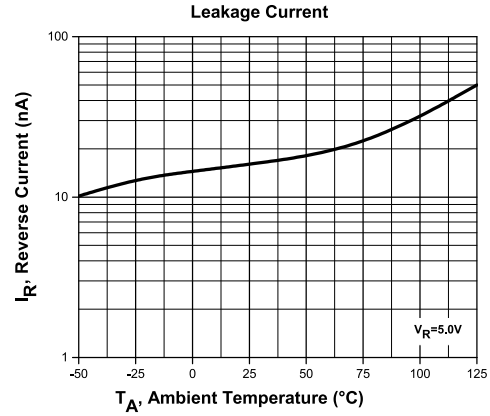
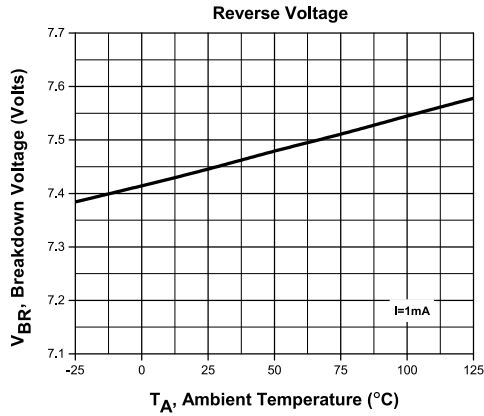
SOD-523 (REV: R3)

R4 (20-October 2015)


  
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**TYPICAL ELECTRICAL CHARACTERISTICS**

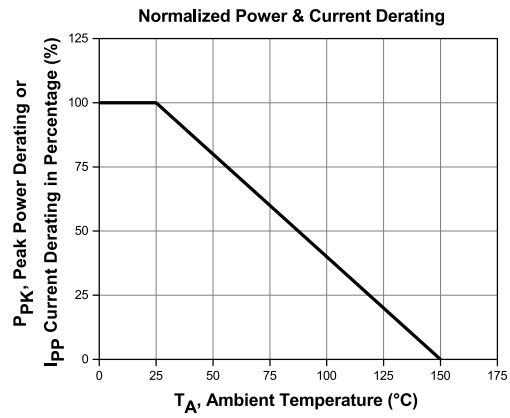
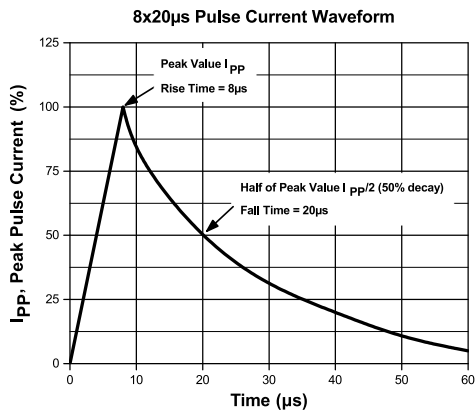
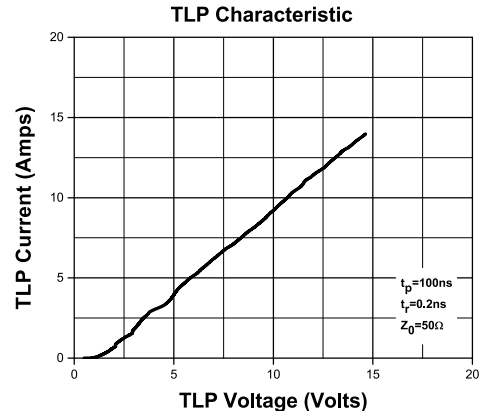
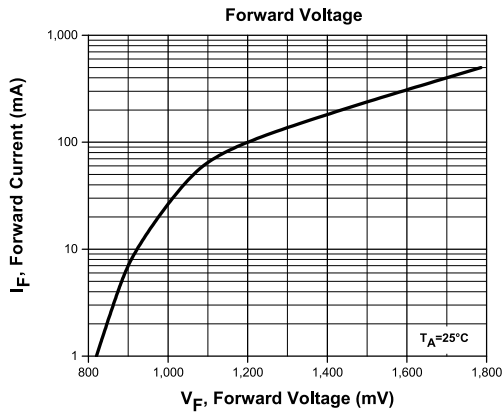


R4 (20-October 2015)

  
**CMO5V0LC**  
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**TYPICAL ELECTRICAL CHARACTERISTICS**



R4 (20-October 2015)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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

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### 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).

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### CONTACT US

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