## CMO5V0LC

## SURFACE MOUNT SILICON UNI-DIRECTIONAL TRANSIENT VOLTAGE SUPPRESSOR



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### **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** 



SOD-523 CASE

#### **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 <sub>A</sub> =25°C)	SYMBOL		UNITS
Peak Power Dissipation (8x20µs)	$P_{PK}$	12	W
Electrical Fast Transient (IEC 61000-4-4) (5x50ns)	EFT	40	Α
ESD Voltage (IEC 61000-4-2, Air)	$V_{ESD}$	15	kV
ESD Voltage (IEC 61000-4-2, Contact)	$V_{ESD}$	10	kV
Operating Junction Temperature	$T_J$	-55 to +125	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

### ELECTRICAL CHARACTERISTICS: (TA=25°C) VF=1.0V MAX @ IF=10mA

Maximum Reverse Stand-off Voltage VRWM	Minimum Breakdown Voltage VBR @ IT	Test Current	Maximum Reverse Leakage Current I <sub>R</sub> @ V <sub>RWM</sub>	Clam Voli (8x2	mum nping tage 0µs) ② Ipp	TLP Cla	ical amping age te 1)	Typical Dynamic Resistance (Note 1) RDYN	Maximum Junction Capacitance @ 0V Bias CJ
V	V	mA	μΑ	V	Α	V	Α	Ω	pF
5.0	6.0	1.0	1.0	12	1.0	5.0	4.0	0.96	0.9
5.0 6.0	1.0	1.0	12 1.0	1.0	10	9.2	0.90	0.9	

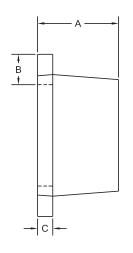
Note 1: Transmission Line Pulse (TLP) conditions: Z<sub>0</sub>=50Ω, tp=100ns

### CMO5V0LC

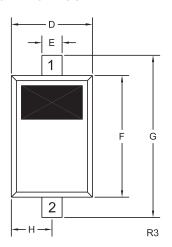


# SURFACE MOUNT SILICON UNI-DIRECTIONAL TRANSIENT VOLTAGE SUPPRESSOR

## **SOD-523 CASE - MECHANICAL OUTLINE**



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## LEAD CODE:

- 1) Cathode 2) Anode
- MARKING CODE: DD

DIMENSIONS					
	INCHES		MILLIMETERS		
SYMBOL	MIN	MAX	MIN	MAX	
Α	0.020	0.031	0.50	0.80	
В	0.008	0.016	0.20	0.40	
С	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	
Н	0.016		0.40		
SOD-523 (REV: R3)					

R4 (20-October 2015)

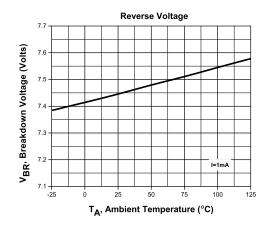
### CMO5V0LC

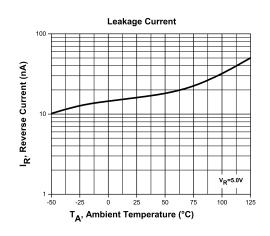
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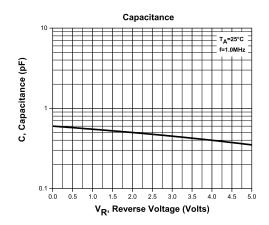


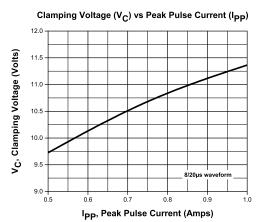
## SURFACE MOUNT SILICON UNI-DIRECTIONAL TRANSIENT VOLTAGE SUPPRESSOR

### TYPICAL ELECTRICAL CHARACTERISTICS









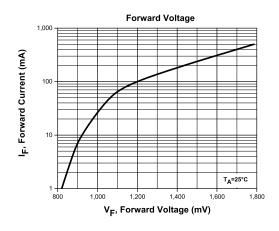


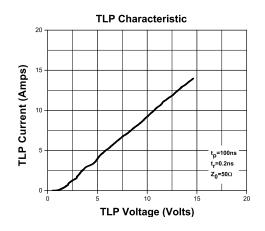
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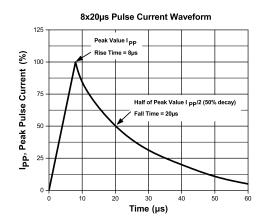


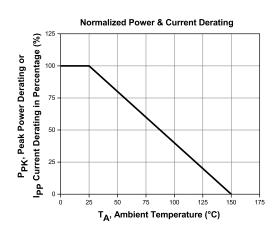
## SURFACE MOUNT SILICON UNI-DIRECTIONAL TRANSIENT VOLTAGE SUPPRESSOR

### TYPICAL ELECTRICAL CHARACTERISTICS









### **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 (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

#### **CONTACT US**

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