

CM6SD6001  
CM6SD6001A  
CM6SD6001C  
CM6SD6001S

SURFACE MOUNT  
ULTRA LOW LEAKAGE  
SILICON SWITCHING DIODES

SUPERmini™



SOT-323 CASE



www.centralsemi.com

#### DESCRIPTION:

The CENTRAL SEMICONDUCTOR CM6SD6001 SERIES are silicon switching diodes manufactured by the epitaxial planar process, epoxy molded in a SUPERmini™ surface mount package, designed for switching applications requiring an extremely low leakage diode.

• Device is **Halogen Free** by design

CM6SD6001: SINGLE  
CM6SD6001A: DUAL, COMMON ANODE  
CM6SD6001C: DUAL, COMMON CATHODE  
CM6SD6001S: DUAL, IN-SERIES

MARKING CODE: 6C1  
MARKING CODE: 61A  
MARKING CODE: 61C  
MARKING CODE: 61S

#### MAXIMUM RATINGS: (T<sub>A</sub>=25°C)

Continuous Reverse Voltage  
Peak Repetitive Reverse Voltage  
Continuous Forward Current  
Peak Repetitive Forward Current  
Peak Forward Surge Current, t<sub>p</sub>=1.0μs  
Peak Forward Surge Current, t<sub>p</sub>=1.0s  
Power Dissipation  
Operating and Storage Junction Temperature  
Thermal Resistance

#### SYMBOL

V<sub>R</sub> 75  
V<sub>RRM</sub> 100  
I<sub>F</sub> 250  
I<sub>FRM</sub> 250  
I<sub>FSM</sub> 4.0  
I<sub>FSM</sub> 1.0  
P<sub>D</sub> 275  
T<sub>J</sub>, T<sub>stg</sub> -65 to +150  
Θ<sub>JA</sub> 455

#### UNITS

V  
V  
mA  
mA  
A  
A  
mW  
°C  
°C/W

#### ELECTRICAL CHARACTERISTICS PER DIODE: (T<sub>A</sub>=25°C unless otherwise noted)

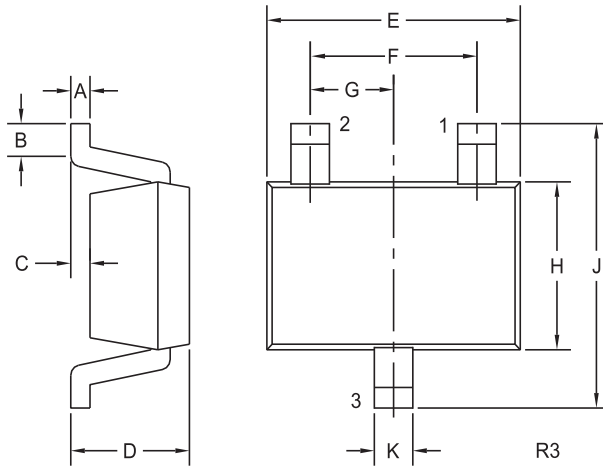
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =75V		500	pA
BV <sub>R</sub>	I <sub>R</sub> =100μA	100		V
V <sub>F</sub>	I <sub>F</sub> =1.0mA		0.85	V
V <sub>F</sub>	I <sub>F</sub> =10mA		0.95	V
V <sub>F</sub>	I <sub>F</sub> =100mA		1.1	V
C <sub>T</sub>	V <sub>R</sub> =0, f=1.0MHz		2.0	pF
t <sub>rr</sub>	I <sub>R</sub> =I <sub>F</sub> =10mA, I <sub>rr</sub> =1.0mA, R <sub>L</sub> =100Ω		3.0	μs

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**SURFACE MOUNT  
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SILICON SWITCHING DIODES**



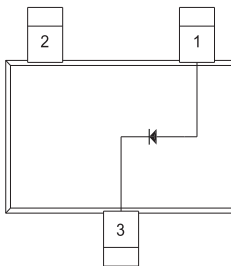
### SOT-323 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.002	0.008	0.05	0.20
B	0.004	-	0.10	-
C	-	0.004	-	0.10
D	0.031	0.043	0.80	1.10
E	0.071	0.087	1.80	2.20
F	0.051		1.30	
G	0.026		0.65	
H	0.045	0.053	1.15	1.35
J	0.079	0.087	2.00	2.20
K	0.008	0.016	0.20	0.40

SOT-323 (REV: R3)

### PIN CONFIGURATIONS

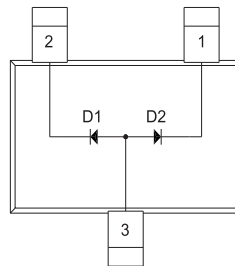


**CMSD6001**

**LEAD CODE:**

- 1) Anode
- 2) NC
- 3) Cathode

**MARKING CODE: 6C1**

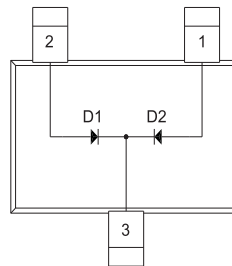


**CMSD6001A**

**LEAD CODE:**

- 1) Cathode D2
- 2) Cathode D1
- 3) Anode D1, D2

**MARKING CODE: 61A**

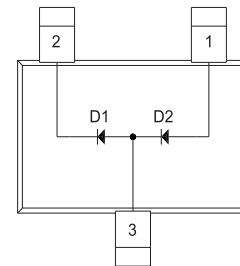


**CMSD6001C**

**LEAD CODE:**

- 1) Anode D2
- 2) Anode D1
- 3) Cathode D1, D2

**MARKING CODE: 61C**



**CMSD6001S**

**LEAD CODE:**

- 1) Anode D2
- 2) Cathode D1
- 3) Anode D1, Cathode D2

**MARKING CODE: 61S**

R3 (9-May 2011)

## 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

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

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

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