

CMSD6001  
 CMSD6001A  
 CMSD6001C  
 CMSD6001S

**SURFACE MOUNT  
 ULTRA LOW LEAKAGE  
 SILICON SWITCHING DIODES**



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

**SUPERmini™**



**SOT-323 CASE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMSD6001 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

**CMSD6001:** SINGLE  
**CMSD6001A:** DUAL, COMMON ANODE  
**CMSD6001C:** DUAL, COMMON CATHODE  
**CMSD6001S:** 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, tp=1.0µs  
 Peak Forward Surge Current, tp=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)

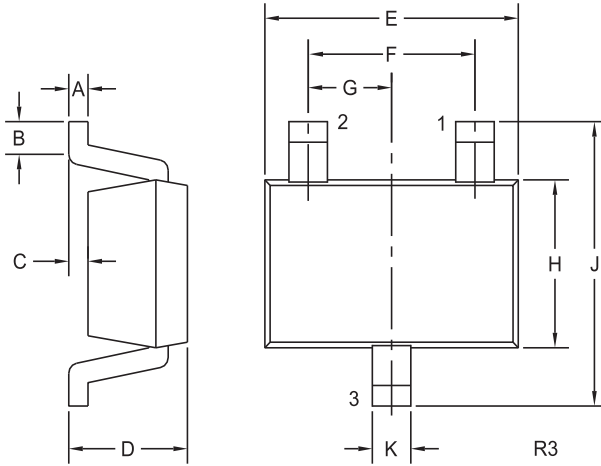
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =75V		500	pA
BV <sub>R</sub>	I <sub>R</sub> =100µA	100		V
V <sub>F</sub>	I <sub>F</sub> =1.0mA		0.85	V
V <sub>F</sub>	I <sub>F</sub> =10mA		0.95	V
V <sub>F</sub>	I <sub>F</sub> =100mA		1.1	V
C <sub>T</sub>	V <sub>R</sub> =0, f=1.0MHz		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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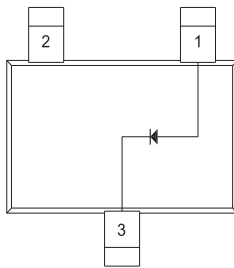
**SOT-323 CASE - MECHANICAL OUTLINE**



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

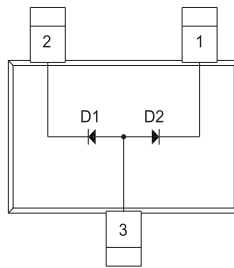
SOT-323 (REV: R3)

**PIN CONFIGURATIONS**



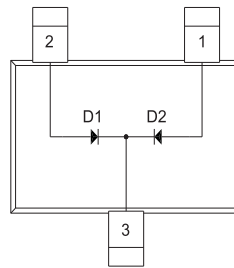
**CMSD6001**  
**LEAD CODE:**  
 1) Anode  
 2) NC  
 3) Cathode

**MARKING CODE: 6C1**



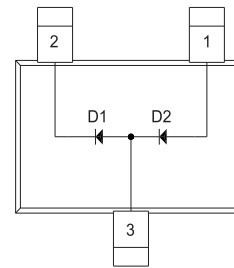
**CMSD6001A**  
**LEAD CODE:**  
 1) Cathode D2  
 2) Cathode D1  
 3) Anode D1, D2

**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

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