

CMSD6001  
 CMSD6001A  
 CMSD6001C  
 CMSD6001S

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

**SUPERmini™**



**SOT-323 CASE**

• Device is *Halogen Free* by design

**CMSD6001:** SINGLE  
**CMSD6001A:** DUAL, COMMON ANODE  
**CMSD6001C:** DUAL, COMMON CATHODE  
**CMSD6001S:** DUAL, IN-SERIES



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

**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.

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

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

Continuous Reverse Voltage  
 Peak Repetitive Reverse Voltage  
 Continuous Forward Current  
 Peak Repetitive Forward Current  
 Peak Forward Surge Current,  $t_p=1.0\mu\text{s}$   
 Peak Forward Surge Current,  $t_p=1.0\text{s}$   
 Power Dissipation  
 Operating and Storage Junction Temperature  
 Thermal Resistance

**SYMBOL**

$V_R$  75  
 $V_{RRM}$  100  
 $I_F$  250  
 $I_{FRM}$  250  
 $I_{FSM}$  4.0  
 $I_{FSM}$  1.0  
 $P_D$  275  
 $T_J, T_{stg}$  -65 to +150  
 $\Theta_{JA}$  455

**UNITS**

V  
 V  
 mA  
 mA  
 A  
 A  
 mW  
 $^\circ\text{C}$   
 $^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS PER DIODE:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=75\text{V}$		500	pA
$BV_R$	$I_R=100\mu\text{A}$	100		V
$V_F$	$I_F=1.0\text{mA}$		0.85	V
$V_F$	$I_F=10\text{mA}$		0.95	V
$V_F$	$I_F=100\text{mA}$		1.1	V
$C_T$	$V_R=0, f=1.0\text{MHz}$		2.0	pF
$t_{rr}$	$I_R=I_F=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$		3.0	$\mu\text{s}$

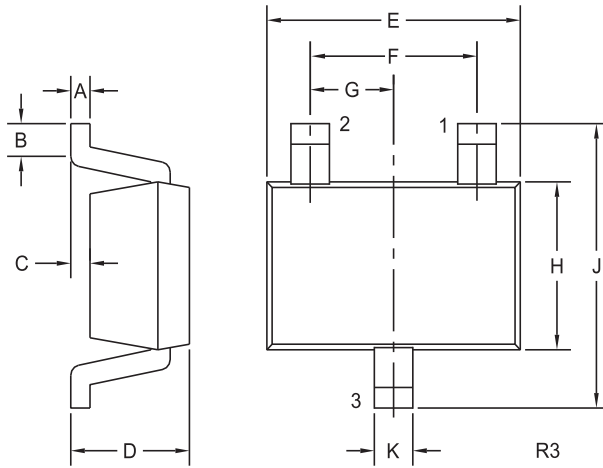
R3 (9-May 2011)

CMSD6001  
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**SURFACE MOUNT  
 ULTRA LOW LEAKAGE  
 SILICON SWITCHING DIODES**

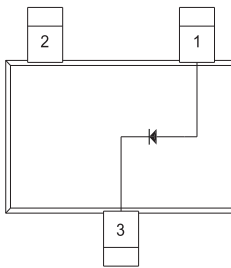
**SOT-323 CASE - MECHANICAL OUTLINE**



SYMBOL	DIMENSIONS		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**

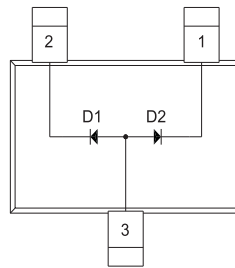


**CMSD6001**

**LEAD CODE:**

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

**MARKING CODE: 6C1**

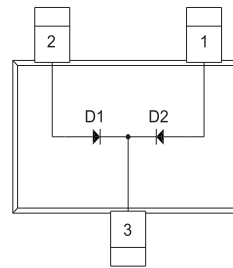


**CMSD6001A**

**LEAD CODE:**

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

**MARKING CODE: 61A**

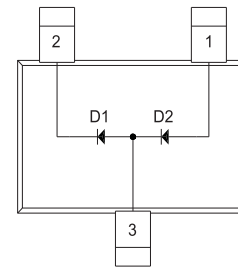


**CMSD6001C**

**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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