

CMSD6001
 CMSD6001A
 CMSD6001C
 CMSD6001S

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



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_A=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_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
 Θ_{JA} 455

UNITS

V
 V
 mA
 mA
 A
 A
 mW
 °C
 °C/W

ELECTRICAL CHARACTERISTICS PER DIODE: (T_A=25°C unless otherwise noted)

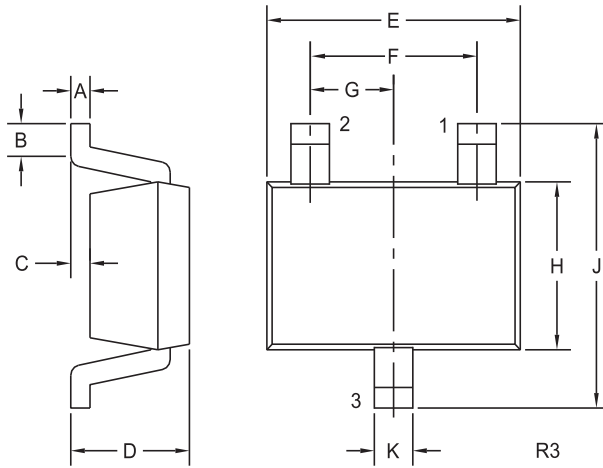
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I _R	V _R =75V		500	pA
BV _R	I _R =100µA	100		V
V _F	I _F =1.0mA		0.85	V
V _F	I _F =10mA		0.95	V
V _F	I _F =100mA		1.1	V
C _T	V _R =0, f=1.0MHz		2.0	pF
t _{rr}	I _R =I _F =10mA, I _{rr} =1.0mA, R _L =100Ω		3.0	µs

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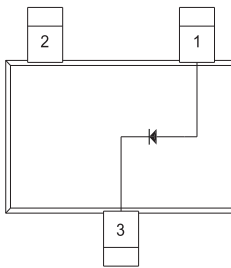
SOT-323 CASE - MECHANICAL OUTLINE



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

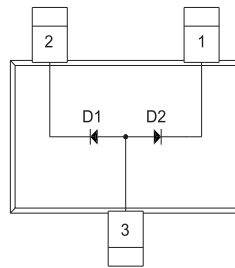
SOT-323 (REV: R3)

PIN CONFIGURATIONS



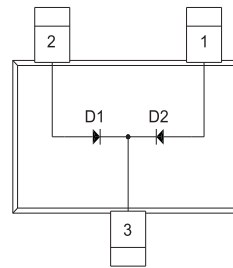
CMSD6001
LEAD CODE:
 1) Anode
 2) NC
 3) Cathode

MARKING CODE: 6C1



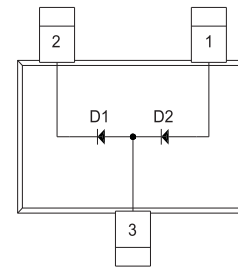
CMSD6001A
LEAD CODE:
 1) Cathode D2
 2) Cathode D1
 3) Anode D1, D2

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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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.

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- 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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