

CMPD1001  
 CMPD1001A  
 CMPD1001S

**SURFACE MOUNT  
 HIGH CURRENT  
 SILICON SWITCHING DIODE**



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPD1001 series types are silicon switching diodes manufactured by the epitaxial planar process, designed for applications requiring high current capability.



**SOT-23 CASE**

The following configurations are available:

CMPD1001 SINGLE  
 CMPD1001A DUAL, COMMON ANODE  
 CMPD1001S DUAL, IN SERIES

**MARKING CODE: L20**  
**MARKING CODE: L22**  
**MARKING CODE: L21**

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

Continuous Reverse Voltage  
 Continuous Forward Current  
 Peak Repetitive Forward Current  
 Peak Repetitive Reverse 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> 90  
 I<sub>F</sub> 250  
 I<sub>FRM</sub> 600  
 I<sub>RRM</sub> 600  
 I<sub>FSM</sub> 6.0  
 I<sub>FSM</sub> 1.0  
 P<sub>D</sub> 350  
 T<sub>J</sub>, T<sub>stg</sub> -65 to +150  
 Θ<sub>JA</sub> 357

**UNITS**

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

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

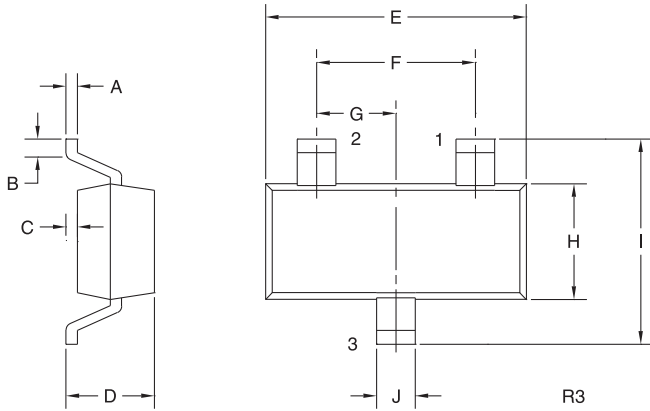
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =90V		100	nA
I <sub>R</sub>	V <sub>R</sub> =90V, T <sub>A</sub> =150°C		100	µA
BV <sub>R</sub>	I <sub>R</sub> =100µA	90		V
V <sub>F</sub>	I <sub>F</sub> =10mA		0.75	V
V <sub>F</sub>	I <sub>F</sub> =50mA		0.84	V
V <sub>F</sub>	I <sub>F</sub> =100mA		0.90	V
V <sub>F</sub>	I <sub>F</sub> =200mA		1.00	V
V <sub>F</sub>	I <sub>F</sub> =400mA		1.25	V
C <sub>T</sub>	V <sub>R</sub> =0, f=1.0MHz		35	pF
t <sub>rr</sub>	I <sub>R</sub> =I <sub>F</sub> =30mA, Rec. to 3.0mA, R <sub>L</sub> =100Ω		50	ns

CMPD1001  
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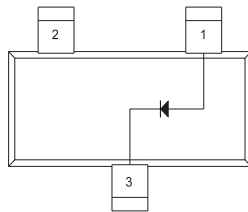
**SOT-23 CASE - MECHANICAL OUTLINE**



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

**PIN CONFIGURATIONS**

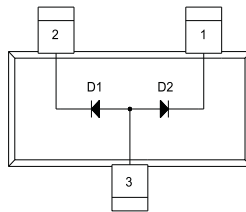


**CMPD1001**

**LEAD CODE:**

- 1) Anode
- 2) No Connection
- 3) Cathode

**MARKING CODE: L20**

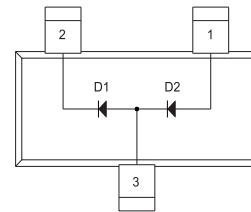


**CMPD1001A**

**LEAD CODE:**

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

**MARKING CODE: L22**



**CMPD1001S**

**LEAD CODE:**

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

**MARKING CODE: L21**

R6 (25-January 2010)

## 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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