

**SURFACE MOUNT
HIGH CURRENT
SILICON SWITCHING DIODE**



SOT-23 CASE



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.

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

MARKING CODE: L20

MARKING CODE: L22

MARKING CODE: L21

MAXIMUM RATINGS: (T _A =25°C)	SYMBOL		UNITS
Continuous Reverse Voltage	V _R	90	V
Continuous Forward Current	I _F	250	mA
Peak Repetitive Forward Current	I _{FRM}	600	mA
Peak Repetitive Reverse Current	I _{RRM}	600	mA
Peak Forward Surge Current, tp=1.0μs	I _{FSM}	6.0	A
Peak Forward Surge Current, tp=1.0s	I _{FSM}	1.0	A
Power Dissipation	P _D	350	mW
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +150	°C
Thermal Resistance	θ _{JA}	357	°C/W

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_R	$V_R=90V$		100	nA
I_R	$V_R=90V, T_A=150^{\circ}C$		100	μA
BV_R	$I_R=100\mu A$	90		V
V_F	$I_F=10mA$		0.75	V
V_F	$I_F=50mA$		0.84	V
V_F	$I_F=100mA$		0.90	V
V_F	$I_F=200mA$		1.00	V
V_F	$I_F=400mA$		1.25	V
C_T	$V_R=0, f=1.0MHz$		35	pF
t_{rr}	$I_R=I_F=30mA, Rec. to 3.0mA, R_L=100\Omega$		50	ns

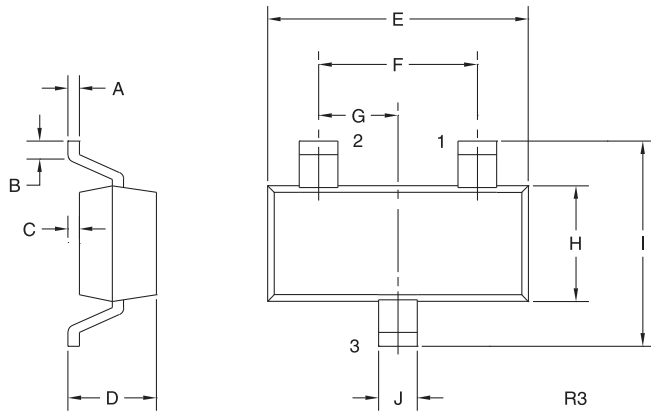
R6 (25-January 2010)

CMPD1001
CMPD1001A
CMPD1001S

**SURFACE MOUNT
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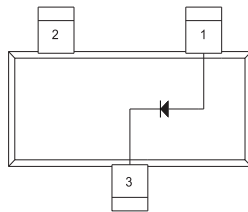
SOT-23 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	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

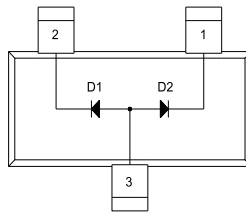


CMPD1001

LEAD CODE:

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

MARKING CODE: L20

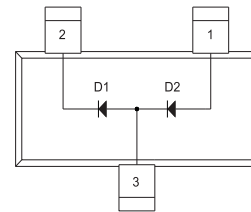


CMPD1001A

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



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

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd 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

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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