

CMPD1001
CMPD1001A
CMPD1001S

**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.

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

	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, $t_p=1.0\mu\text{s}$	I_{FSM}	6.0	A
Peak Forward Surge Current, $t_p=1.0\text{s}$	I_{FSM}	1.0	A
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	Θ_{JA}	357	$^{\circ}\text{C/W}$

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

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

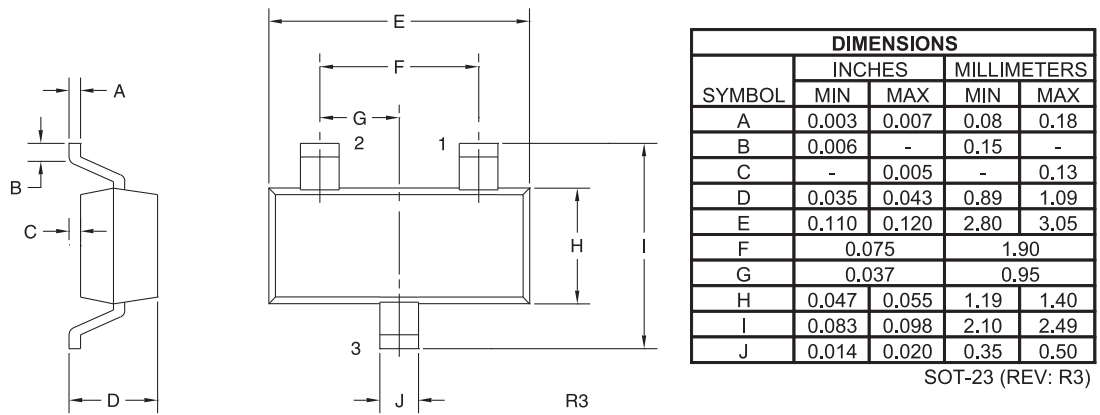
R6 (25-January 2010)

CMPD1001
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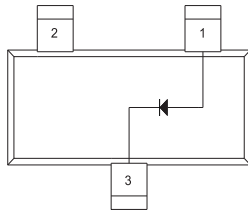
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HIGH CURRENT
SILICON SWITCHING DIODE



SOT-23 CASE - MECHANICAL OUTLINE



PIN CONFIGURATIONS

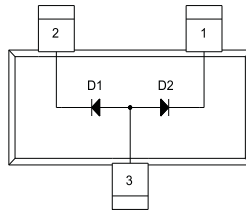


CMPD1001

LEAD CODE:

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

MARKING CODE: L20

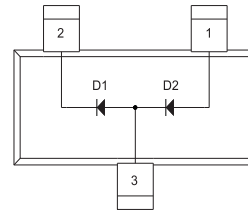


CMPD1001A

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)

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

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