

CMPD5001
CMPD5001S

SURFACE MOUNT
HIGH CURRENT
INDUCTIVE LOAD
SILICON SWITCHING DIODE



SOT-23 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMPD5001 series types are silicon switching diodes manufactured by the epitaxial planar process, designed for switching applications requiring extremely high current capability.

The following configurations are available:

CMPD5001 SINGLE
CMPD5001S DUAL, IN SERIES

MARKING CODE: DA2

MARKING CODE: D49

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

Continuous Reverse Voltage
Continuous Forward Current
Peak Repetitive Forward Current
Peak Repetitive Reverse 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	120
I_F	400
I_{FRM}	800
I_{RRM}	600
I_{FSM}	6.0
I_{FSM}	1.5
P_D	350
T_J, T_{stg}	-65 to +150
Θ_{JA}	357

UNITS

V
mA
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	$V_R=90\text{V}$		100	nA
I_R	$V_R=90\text{V}, T_A=150^{\circ}\text{C}$		100	μA
BV_R	$I_R=50\mu\text{A}$	120	325	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}	$I_R=I_F=30\text{mA}, I_{rr}=3.0\text{mA}, R_L=100\Omega$		60	ns
t_{rr}	$I_R=I_F=10\text{mA}, I_{rr}=3.0\text{mA}, R_L=100\Omega$		50	ns

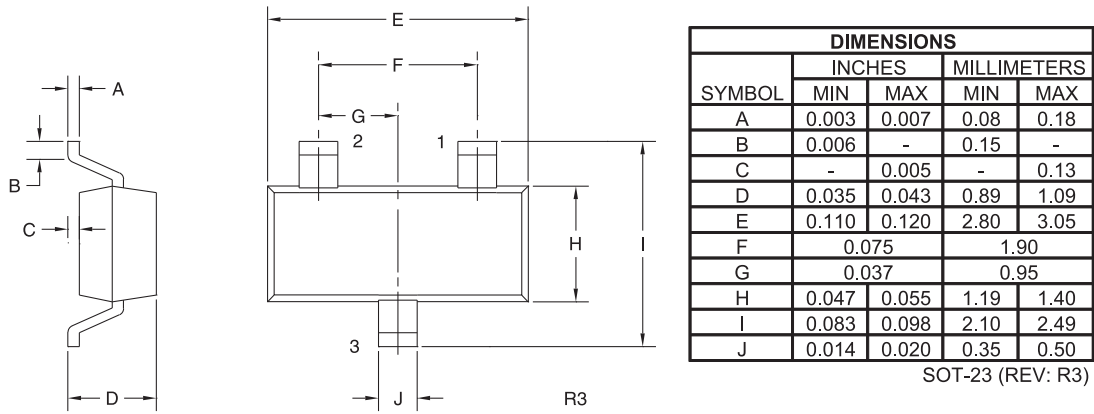
R4 (25-January 2010)

CMPD5001
CMPD5001S

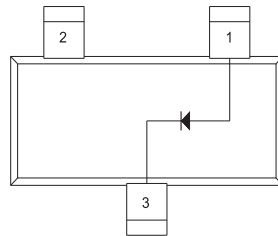
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SOT-23 CASE - MECHANICAL OUTLINE



PIN CONFIGURATIONS

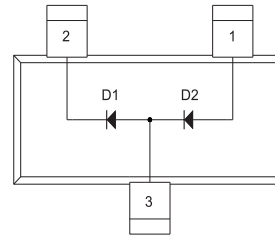


CMPD5001

LEAD CODE:

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

MARKING CODE: DA2



CMPD5001S

LEAD CODE:

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

MARKING CODE: D49

R4 (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).

CONTACT US

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