

**CMPD5001  
CMPD5001S**

**HIGH CURRENT  
INDUCTIVE LOAD  
SWITCHING DIODE**



**SOT-23 CASE**

**Central™  
Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPD5001 series types are silicon switching diodes manufactured by the epitaxial planar process, designed for switching inductive load 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** ( $T_A=25^{\circ}\text{C}$ )

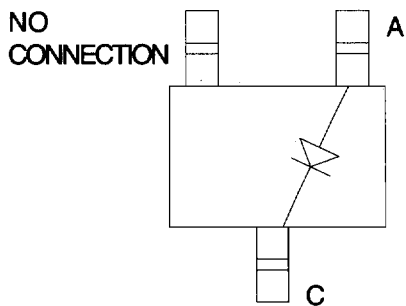
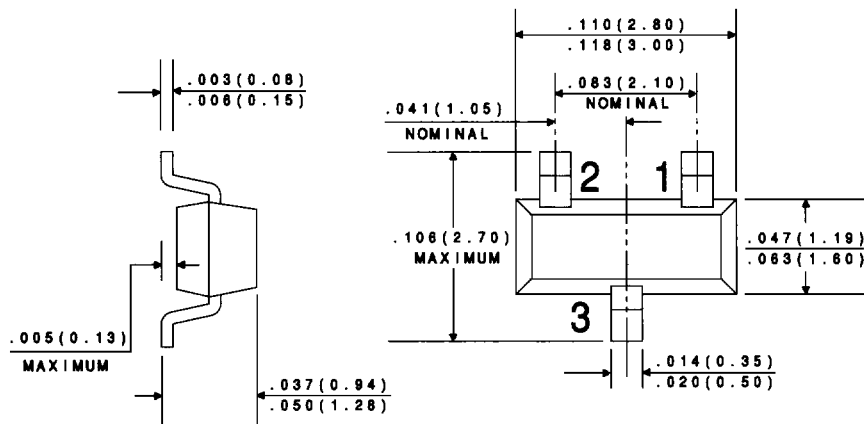
	<b>SYMBOL</b>		<b>UNITS</b>
Continuous Reverse Voltage	$V_R$	120	V
Continuous Forward Current	$I_F$	400	mA
Peak Repetitive Forward Current	$I_{FRM}$	800	mA
Peak Repetitive Reverse Current	$I_{RRM}$	600	mA
Forward Surge Current, $t_p=1 \mu\text{s}$	$I_{FSM}$	6000	mA
Forward Surge Current, $t_p=1 \text{s}$	$I_{FSM}$	1500	mA
Power Dissipation	$P_D$	350	mW
Operating and Storage			
Junction Temperature	$T_J, T_{stg}$	-65 to +150	$^{\circ}\text{C}$
Thermal Resistance	$\theta_{JA}$	357	$^{\circ}\text{C/W}$

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

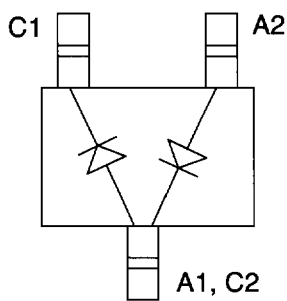
<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNITS</b>
$B_{VR}$	$I_R=1.0\text{mA}$	120	175	V
$I_R$	$V_R=90\text{V}$		100	nA
$I_R$	$V_R=90\text{V}, T_A=150^{\circ}\text{C}$		100	$\mu\text{A}$
$V_F$	$I_F=10\text{mA}$		0.75	V
$V_F$	$I_F=50\text{mA}$		0.84	V
$V_F$	$I_F=100\text{mA}$		0.90	V
$V_F$	$I_F=200\text{mA}$		1.00	V

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$V_F$	$I_F=400\text{mA}$		1.25	V
$C_T$	$V_R=0, f=1\text{ MHz}$		35	pF
$t_{rr}$	$I_F=I_R=30\text{mA}, \text{RECOV. TO } 1.0\text{mA}, R_L=100\Omega$		60	ns
$t_{rr}$	$I_F=I_R=10\text{mA}, \text{RECOV. TO } 1.0\text{mA}, R_L=100\Omega$		50	ns

All dimensions in inches (mm).



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DATA SHEET