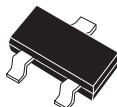


**CMPD5001**  
**CMPD5001S**

**HIGH CURRENT  
INDUCTIVE LOAD  
SWITCHING DIODE**



**SOT-23 CASE**

The following configurations are available:

CMPD5001            SINGLE  
CMPD5001S          DUAL, IN SERIES

**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.

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

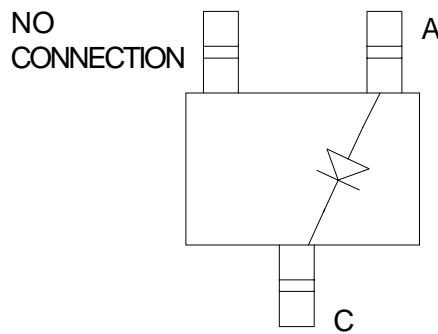
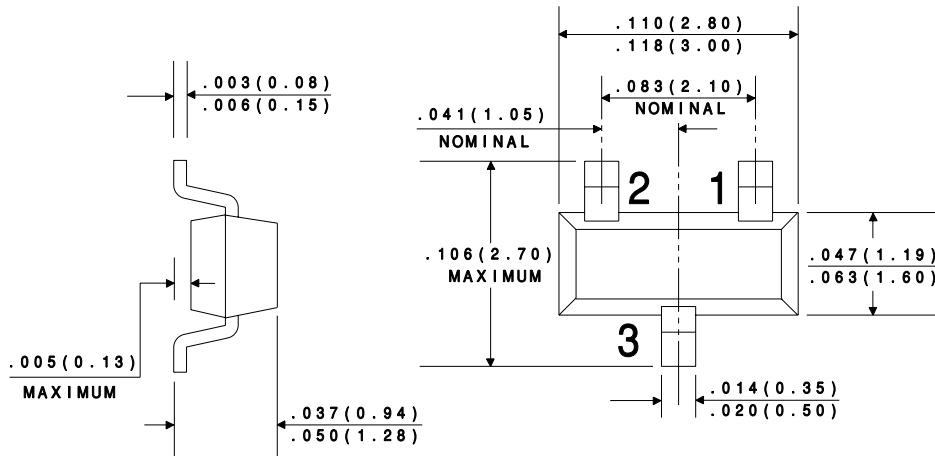
	<b>SYMBOL</b>		<b>UNITS</b>
Continuous Reverse Voltage	$V_R$	120	V
Continuous Forward Current	$I_F$	400	mA
Peak Repetitive Forward Current	$I_{FRM}$	800	mA
Peak Repetitive Reverse Current	$I_{RRM}$	600	mA
Forward Surge Current, $t_p=1 \mu\text{s}$	$I_{FSM}$	6000	mA
Forward Surge Current, $t_p=1 \text{ s}$	$I_{FSM}$	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)

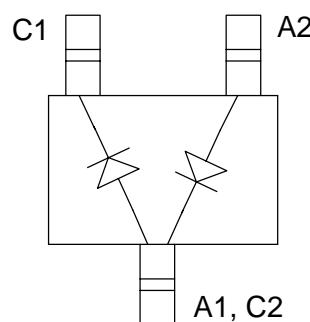
<b>SYMBOL</b>	<b>TEST CONDITIONS</b>	<b>MIN</b>	<b>MAX</b>	<b>UNITS</b>
$B_{VR}$	$I_R=1.0\text{mA}$	120	175	V
$I_R$	$V_R=90\text{V}$		100	nA
$I_R$	$V_R=90\text{V}, T_A=150^\circ\text{C}$		100	$\mu\text{A}$
$V_F$	$I_F=10\text{mA}$		0.75	V
$V_F$	$I_F=50\text{mA}$		0.84	V
$V_F$	$I_F=100\text{mA}$		0.90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



CMPD5001



CMPD5001S