



**THE DATASHEET OF  
CMPD6001C TR**



CMPD6001  
 CMPD6001A  
 CMPD6001C  
 CMPD6001S

**SURFACE MOUNT SILICON  
 ULTRA LOW LEAKAGE  
 SWITCHING DIODES**



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPD6001 series devices are silicon switching diodes manufactured by the epitaxial planar process, designed for switching applications requiring an extremely low leakage diode.



**SOT-23 CASE**

The following configurations are available:

- CMPD6001 SINGLE
- CMPD6001A DUAL, COMMON ANODE
- CMPD6001C DUAL, COMMON CATHODE
- CMPD6001S DUAL, IN SERIES

**MARKING CODE: ULO**

**MARKING CODE: ULA**

**MARKING CODE: ULC**

**MARKING CODE: ULS**

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

Continuous Reverse Voltage	
Peak Repetitive Reverse Voltage	
Continuous Forward Current	
Peak Repetitive Forward 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		UNITS
$V_R$	75	V
$V_{RRM}$	100	V
$I_F$	250	mA
$I_{FRM}$	250	mA
$I_{FSM}$	4.0	A
$I_{FSM}$	1.0	A
$P_D$	350	mW
$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$
$\theta_{JA}$	357	$^\circ\text{C}/\text{W}$

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

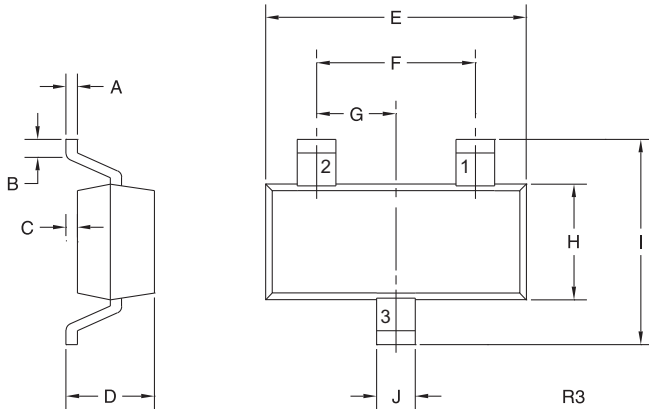
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=75\text{V}$		500	pA
$BV_R$	$I_R=100\mu\text{A}$	100		V
$V_F$	$I_F=1.0\text{mA}$		0.85	V
$V_F$	$I_F=10\text{mA}$		0.95	V
$V_F$	$I_F=100\text{mA}$		1.1	V
$C_J$	$V_R=0, f=1.0\text{MHz}$		2.0	pF
$t_{rr}$	$I_R=I_F=10\text{mA}, I_{rr}=1.0\text{mA}, R_L=100\Omega$		3.0	$\mu\text{s}$

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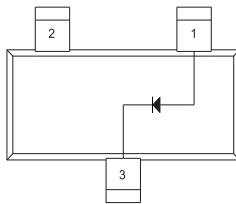
**SOT-23 CASE - MECHANICAL OUTLINE**



SYMBOL	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

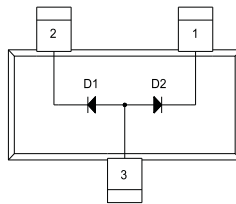
SOT-23 (REV: R3)

**PIN CONFIGURATIONS**



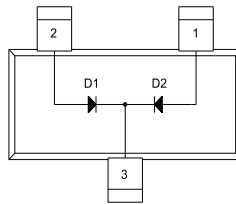
**CMPD6001**  
**LEAD CODE:**  
 1) Anode  
 2) No Connection  
 3) Cathode

**MARKING CODE: ULO**



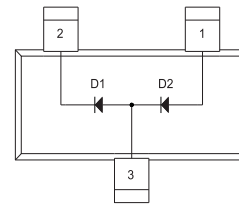
**CMPD6001A**  
**LEAD CODE:**  
 1) Cathode D2  
 2) Cathode D1  
 3) Anode D1, D2

**MARKING CODE: ULA**



**CMPD6001C**  
**LEAD CODE:**  
 1) Anode D2  
 2) Anode D1  
 3) Cathode D1, D2

**MARKING CODE: ULC**



**CMPD6001S**  
**LEAD CODE:**  
 1) Anode D2  
 2) Cathode D1  
 3) Anode D1, Cathode D2

**MARKING CODE: ULS**

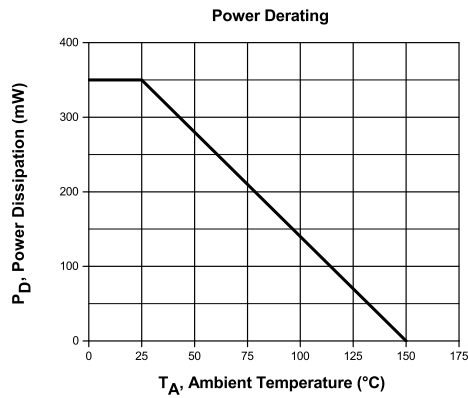
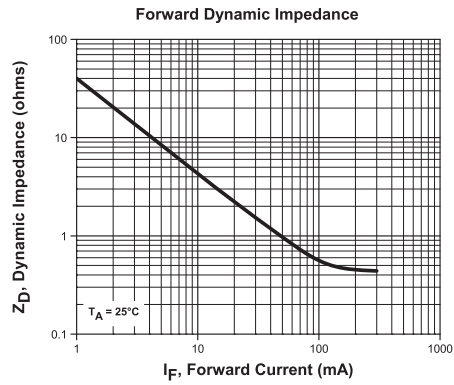
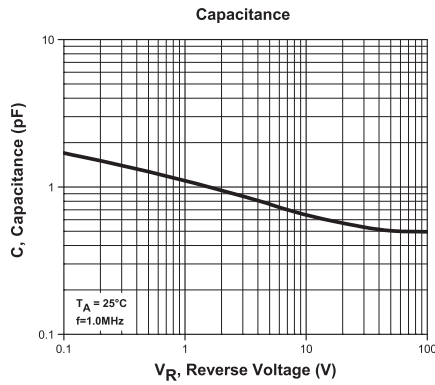
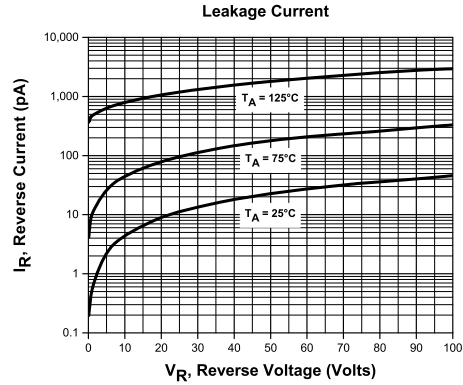
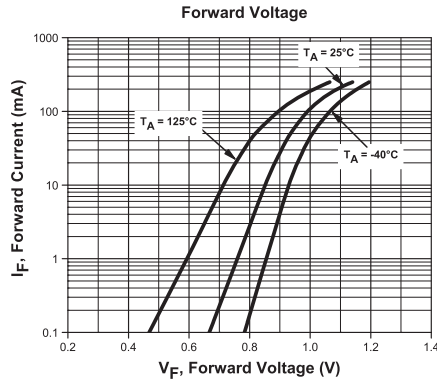
R6 (16-February 2017)

CMPD6001  
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**TYPICAL ELECTRICAL CHARACTERISTICS**



R6 (16-February 2017)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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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### 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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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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