



**THE DATASHEET OF  
CMPD3003A TR**



CMPD3003  
 CMPD3003A  
 CMPD3003C  
 CMPD3003S

**SURFACE MOUNT  
 LOW LEAKAGE  
 SILICON SWITCHING DIODE**



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPD3003 series types 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:

CMPD3003 SINGLE  
 CMPD3003A DUAL, COMMON ANODE  
 CMPD3003C DUAL, COMMON CATHODE  
 CMPD3003S DUAL, IN SERIES

**MARKING CODE: LLO**

**MARKING CODE: LLA**

**MARKING CODE: LLC**

**MARKING CODE: LLS**

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

Continuous Reverse Voltage  
 Average Forward Current  
 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**

$V_R$  180  
 $I_O$  200  
 $I_F$  600  
 $I_{FRM}$  700  
 $I_{FSM}$  2.0  
 $I_{FSM}$  1.0  
 $P_D$  350  
 $T_J, T_{stg}$  -65 to +150  
 $\theta_{JA}$  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
$I_R$	$V_R=125\text{V}$		1.0	nA
$I_R$	$V_R=125\text{V}, T_A=150^\circ\text{C}$		3.0	$\mu\text{A}$
$I_R$	$V_R=180\text{V}$		10	nA
$I_R$	$V_R=180\text{V}, T_A=150^\circ\text{C}$		5.0	$\mu\text{A}$
$BV_R$	$I_R=5.0\mu\text{A}$	200		V
$V_F$	$I_F=1.0\text{mA}$	0.62	0.72	V
$V_F$	$I_F=10\text{mA}$	0.72	0.83	V
$V_F$	$I_F=50\text{mA}$	0.80	0.89	V
$V_F$	$I_F=100\text{mA}$	0.83	0.93	V
$V_F$	$I_F=200\text{mA}$	0.87	1.10	V
$V_F$	$I_F=300\text{mA}$	0.90	1.15	V
$C_T$	$V_R=0, f=1.0\text{MHz}$		4.0	pF

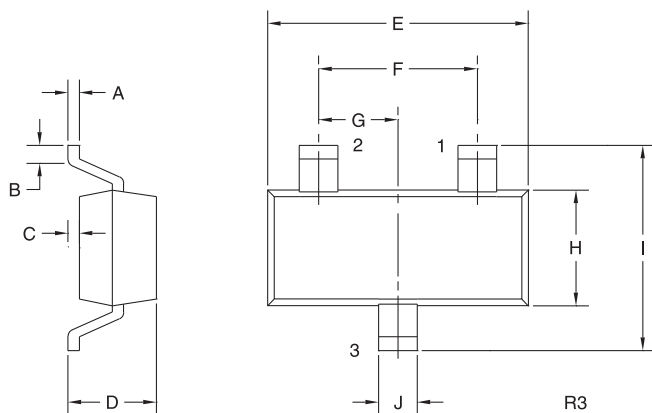
R4 (25-January 2010)

CMPD3003  
 CMPD3003A  
 CMPD3003C  
 CMPD3003S



**SURFACE MOUNT  
 LOW LEAKAGE  
 SILICON SWITCHING DIODE**

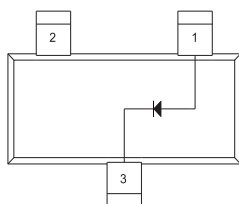
**SOT-23 CASE - MECHANICAL OUTLINE**



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**

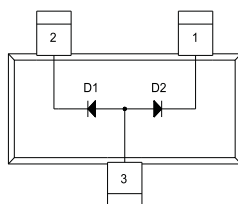


**CMPD3003**

**LEAD CODE:**

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

**MARKING CODE: LLO**

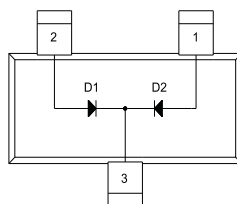


**CMPD3003A**

**LEAD CODE:**

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

**MARKING CODE: LLA**

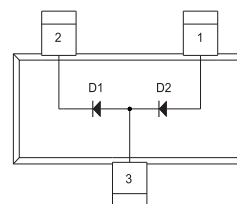


**CMPD3003C**

**LEAD CODE:**

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

**MARKING CODE: LLC**



**CMPD3003S**

**LEAD CODE:**

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

**MARKING CODE: LLS**

R4 (25-January 2010)

## 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

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