

**CMPD4150****SURFACE MOUNT  
HIGH CURRENT, HIGH SPEED  
SILICON SWITCHING DIODE****SOT-23 CASE**[www.centrasemi.com](http://www.centrasemi.com)**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMPD4150 type is an ultra-high speed silicon switching diode manufactured by the epitaxial planar process, in an epoxy molded surface mount package, designed for high speed switching applications.

**MARKING CODE: ABA****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**

$V_R$  50  
 $V_{RRM}$  50  
 $I_F$  250  
 $I_{FRM}$  250  
 $I_{FSM}$  4.0  
 $I_{FSM}$  1.0  
 $P_D$  350  
 $T_J, T_{stg}$  -65 to +150  
 $\theta_{JA}$  357

**UNITS**

V  
V  
mA  
mA  
A  
A  
mW  
 $^\circ\text{C}$   
 $^\circ\text{C/W}$

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

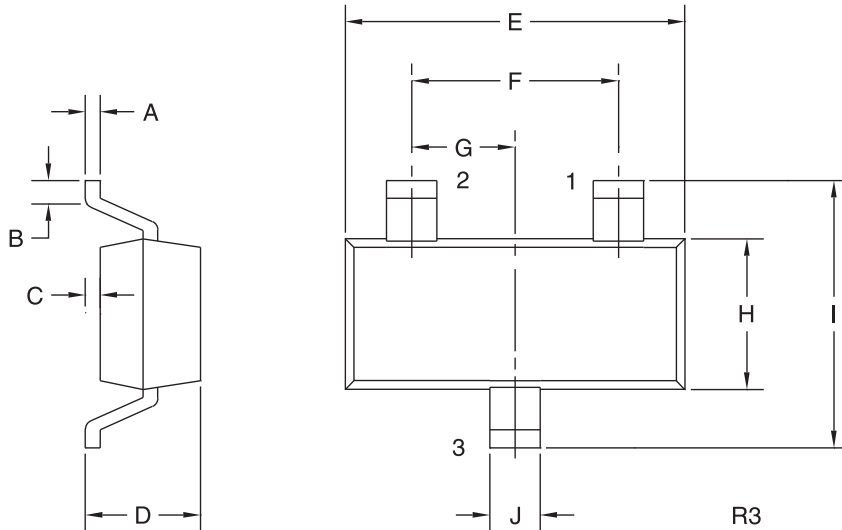
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_R=50\text{V}$		100	nA
$V_F$	$I_F=1.0\text{mA}$	0.54	0.62	V
$V_F$	$I_F=10\text{mA}$	0.66	0.74	V
$V_F$	$I_F=50\text{mA}$	0.76	0.86	V
$V_F$	$I_F=100\text{mA}$	0.82	0.92	V
$V_F$	$I_F=200\text{mA}$	0.87	1.0	V
$C_T$	$V_R=0, f=1.0\text{MHz}$		4.0	pF
$t_{rr}$	$I_R=I_F=10\text{mA}, R_L=100\Omega, \text{Rec. to } 1.0\text{mA}$		4.0	ns

CMPD4150

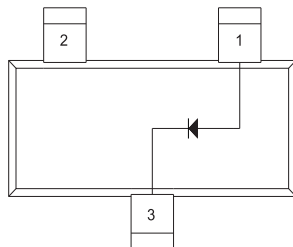
**SURFACE MOUNT  
HIGH CURRENT, HIGH SPEED  
SILICON SWITCHING DIODE**



**SOT-23 CASE - MECHANICAL OUTLINE**



**PIN CONFIGURATION**



**LEAD CODE:**

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

**MARKING CODE: ABA**

DIMENSIONS				
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)

R6 (25-January 2010)

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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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