#### **CMPD4150**

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



www.centralsemi.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 <sub>A</sub> =25°C)	SYMBOL		UNITS
Continuous Reverse Voltage	$V_{R}$	50	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	V
Continuous Forward Current	Ι <sub>Ε</sub>	250	mA
Peak Repetitive Forward Current	I <sub>FRM</sub>	250	mA
Peak Forward Surge Current, tp=1.0µs	IFSM	4.0	Α
Peak Forward Surge Current, tp=1.0s	IFSM	1.0	Α
Power Dissipation	$P_{D}$	350	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	$\Theta_{\sf JA}$	357	°C/W

## **ELECTRICAL CHARACTERISTICS:** (T<sub>A</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{R}$	V <sub>R</sub> =50V		100	nA
٧ <sub>F</sub>	I <sub>F</sub> =1.0mA	0.54	0.62	V
٧ <sub>F</sub>	I <sub>F</sub> =10mA	0.66	0.74	V
$V_{F}$	I <sub>F</sub> =50mA	0.76	0.86	V
$V_{F}$	I <sub>F</sub> =100mA	0.82	0.92	V
$V_{F}$	I <sub>F</sub> =200mA	0.87	1.0	V
$C_T$	V <sub>R</sub> =0, f=1.0MHz		4.0	pF
t <sub>rr</sub>	$I_R=I_F=10\text{mA}$ , $R_I=100\Omega$ , Rec. to 1.0mA		4.0	ns

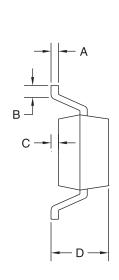
R6 (25-January 2010)

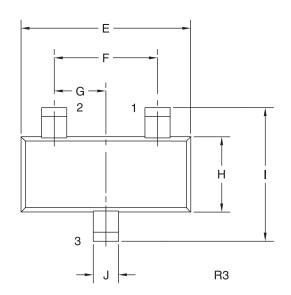
## CMPD4150

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

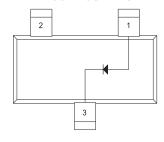


# **SOT-23 CASE - MECHANICAL OUTLINE**





#### **PIN CONFIGURATION**



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

MARKING CODE: ABA

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
Α	0.003	0.007	0.08	0.18
В	0.006	-	0.15	-
С	-	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	
Н	0.047	0.055	1.19	1.40
	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)

www.centralsemi.com



#### **OUTSTANDING SUPPORT AND SUPERIOR SERVICES**

#### 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

#### **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

#### 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).

## **CONTACT US**

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp. 145 Adams Avenue Hauppauge, NY 11788 USA Main Tel: (631) 435-1110 Main Fax: (631) 435-1824

Support Team Fax: (631) 435-3388

www.centralsemi.com

Worldwide Field Representatives: www.centralsemi.com/wwreps

**Worldwide Distributors:** 

www.centralsemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: <a href="https://www.centralsemi.com/terms">www.centralsemi.com/terms</a>

www.centralsemi.com (001)



# Product End of Life Notification

PDN ID:	PDN01074
Notification Date:	2/26/18
Last Buy Date:	8/26/18
Last Shipment Date	2/26/19

Summary: The following high speed switching diodes have been discontinued and are now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

Central Part Number	Replacement
BAS56 BK	N/A
BAS56 TR	N/A
CMHD4150 BK	N/A
CMHD4150 TR	N/A
CMPD4150 BK	N/A
CMPD4150 TR	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centralsemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.

CCC785 REV 002