

SURFACE MOUNT HIGH SPEED SILICON SWITCHING DIODE



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# DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMHD4150 type is a high speed silicon switching diode manufactured by the epitaxial planar process, in an epoxy molded surface mount package, designed for high speed switching applications.

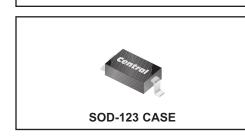
# MARKING CODE: C50

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Continuous Reverse Voltage	VR	50	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	V
Continuous Forward Current	١ <sub>F</sub>	250	mA
Peak Repetitive Forward Current	IFRM	250	mA
Peak Forward Surge Current, tp=1.0µs	IFSM	4.0	А
Peak Forward Surge Current, tp=1.0s	IFSM	1.0	А
Power Dissipation	PD	400	mW
Operating and Storage Junction Temperature	т <sub>Ј</sub> , Т <sub>stg</sub>	-65 to +150	°C
Thermal Resistance	$\Theta_{JA}$	312.5	°C/W

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

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

R3 (5-August 2010)

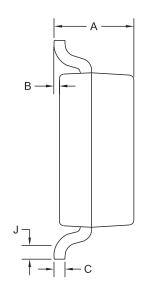


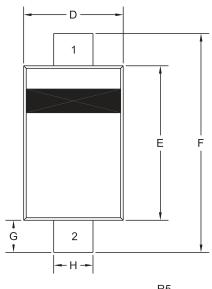


# CMHD4150

#### SURFACE MOUNT HIGH SPEED SILICON SWITCHING DIODE

# SOD-123 CASE - MECHANICAL OUTLINE





R5

LEAD CODE 1) Cathode 2) Anode

MARKING CODE: C50

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
А	0.037	0.053	0.95	1.35
В	0.000	0.005	0.00	0.12
С	-	0.008	-	0.20
D	0.055	0.071	1.40	1.80
Е	0.098	0.110	2.50	2.80
F	0.142	0.154	3.60	3.90
G	0.016	-	0.40	-
Н	0.020	0.028	0.50	0.70
J	0.010	-	0.25	-
		SO	D-123 (F	REV:R5)

R3 (5-August 2010)

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# **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

#### **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

· Custom product packing

- PbSn plating options
- Package details
- Application notes
- · Application and design sample kits

Custom bar coding for shipments

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).
- 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**

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# 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.