

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





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# **DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CLL4150 type is an ultra-high speed silicon switching diode manufactured by the epitaxial planar process, in a hermetically sealed glass surface mount package, designed for high speed switching applications.

## MARKING: CATHODE BAND

MAXIMUM RATINGS: (T <sub>A</sub> =25°C)	SYMBOL		UNITS
Continuous Reverse Voltage	V <sub>R</sub>	50	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	50	V
Continuous Forward Current	١ <sub>F</sub>	300	mA
Peak Repetitive Forward Current	<sup>I</sup> FRM	600	mA
Peak Forward Surge Current, tp=1.0µs	<sup>I</sup> FSM	4.0	А
Peak Forward Surge Current, tp=1.0s	<sup>I</sup> FSM	1.0	А
Power Dissipation	PD	500	mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>	-65 to +200	°C
Thermal Resistance	$\Theta_{JA}$	350	°C/W

ELECTRICAL CHARACTERISTICS: (T <sub>A</sub> =25°C unless otherwise noted)		
SYMBOL	TEST CONDITIONS	MIN

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I <sub>R</sub>	V <sub>R</sub> =50V		100	nA
ΒV <sub>R</sub>	Ι <sub>R</sub> =5.0μΑ	75		V
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
٧ <sub>F</sub>	I <sub>F</sub> =50mA	0.76	0.86	V
٧ <sub>F</sub>	I <sub>F</sub> =100mA	0.82	0.92	V
٧ <sub>F</sub>	I <sub>F</sub> =200mA	0.87	1.0	V
с <sub>т</sub>	V <sub>R</sub> =0, f=1.0 MHz		4.0	pF
t <sub>rr</sub>	$I_R=I_F=10$ mA, R <sub>L</sub> =100 $\Omega$ , Rec. to 1.0mA		4.0	ns

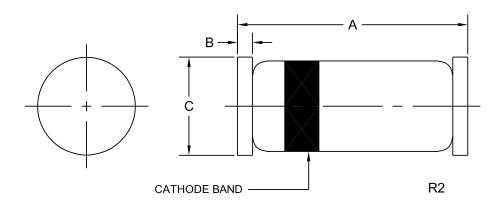
R3 (8-January 2010)





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# SOD-80 CASE - MECHANICAL OUTLINE



# MARKING: CATHODE BAND

DIMENSIONS						
	INCHES		MILLIMETERS			
SYMBOL	MIN	MAX	MIN	MAX		
А	0.130	0.146	3.30	3.71		
В	0.014		0.35			
C (DIA)	0.049	0.067	1.25	1.70		
SOD-80 (REV:R2)						

R3 (8-January 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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