

# Silicon Diode

## **CCLHM080**

3.1V / 8.2mA

current regulator

# DATASHEET

OEM – Central Semiconductor Corp.

Source: Central Databook 2004

CCLHM080  
THRU  
CCLHM150

SURFACE MOUNT  
HIGH CURRENT SILICON  
CURRENT LIMITING DIODE



# Central™ Semiconductor Corp.

**FEATURES:**

- LOW COST
- SUPERIOR LOT TO LOT CONSISTENCY
- HIGH RELIABILITY
- LEADED DEVICES AVAILABLE
- SPECIAL SELECTIONS AVAILABLE

**MARKING CODE: SEE MARKING CODE TABLE ON FOLLOWING PAGE**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CCLHM080 series types are high current silicon field effect current regulator diodes designed for applications requiring a constant current over a wide voltage range. These devices are manufactured in the cost effective SOD-80 double plug case which provides many benefits to the user including space saving and improved thermal characteristics. Special selections of  $I_p$  (regulator current) are available for critical applications.

**MAXIMUM RATINGS:** ( $T_L=75^\circ\text{C}$ )

	SYMBOL		UNITS
Peak Operating Voltage	POV	50	V
Power Dissipation	$P_D$	800	mW
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +200	$^\circ\text{C}$

TYPE NO.	REGULATOR(1) CURRENT			DYNAMIC IMPEDANCE	KNEE IMPEDANCE	LIMITING VOLTAGE	TEMPERATURE COEFFICIENT
	$I_p @ V_T=25\text{V}$			$Z_T @ V_T=25\text{V}$	$Z_K @ V_K=6.0\text{V}$	$V_L @ I_L=0.8 I_p \text{ MIN}$	TC*
	mA			MΩ	kΩ	VOLTS	%/ $^\circ\text{C}$
	MIN	NOM	MAX	MIN	MIN	MAX	
CCLHM080	6.56	8.20	9.84	0.32	15	3.1	-0.25 TO -0.45
CCLHM100	8.00	10.0	12.0	0.17	6.0	3.5	-0.25 TO -0.45
CCLHM120	9.60	12.0	14.4	0.08	3.0	3.8	-0.25 TO -0.45
CCLHM150	12.0	15.0	18.0	0.03	2.0	4.3	-0.25 TO -0.45

\*The Temperature Coefficient is measured between the following points: +25 $^\circ\text{C}$ , +50 $^\circ\text{C}$

(1) PULSED METHOD.  $\left( \text{PULSE WIDTH (ms)} = \frac{27.5}{I_p \text{ NOM (mA)}} \right)$

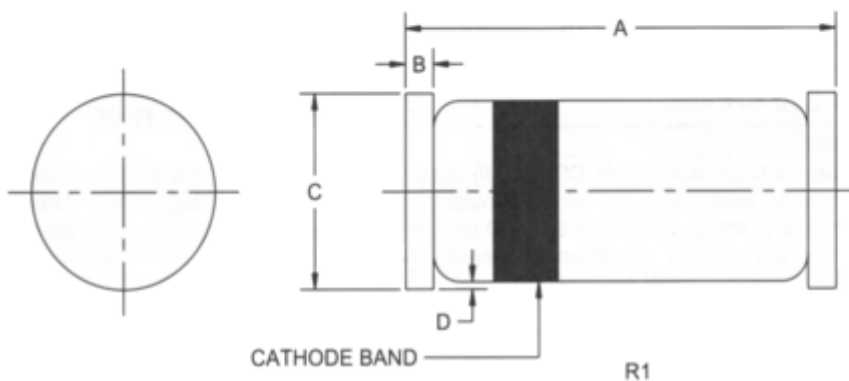
For Typical Electrical Characteristic Data for these devices, please see page 890.



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SOD-80 CASE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.130	0.146	3.30	3.71
B	0.016		0.41	
C (DIA)	0.051	0.067	1.30	1.70
D	-	0.004	-	0.10

SOD-80 (REV:R1)

DATA SHEETS

MARKING CODES:

CENTRAL TYPE NO.	BAND 1*	BAND 2	BAND 3
CCLHM080	BLACK	GREEN	YELLOW
CCLHM100	BLACK	ORANGE	PINK
CCLHM120	BLACK	ORANGE	WHITE
CCLHM150	BLACK	ORANGE	LIGHT BLUE

\* Cathode Band

R4 (13-November 2002)