

Silicon Diode

CCLHM100

3.5V / 10mA

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			$\text{M}\Omega$	$\text{k}\Omega$	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 $^\circ\text{C}$

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

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

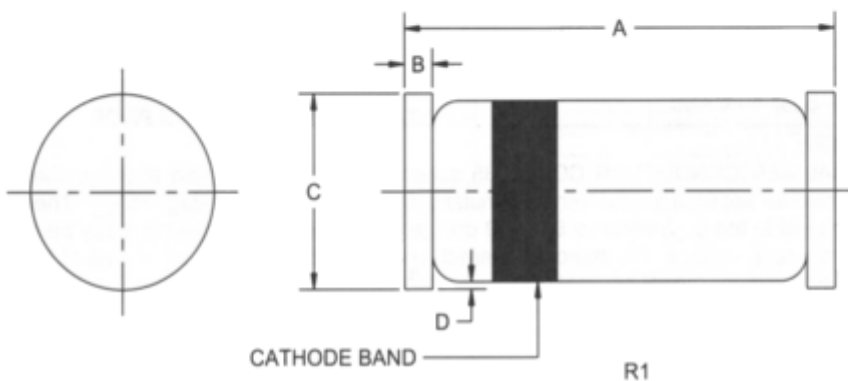
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SOD-80 CASE - MECHANICAL OUTLINE



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

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