

CCLH080 CCLH120
CCLH100 CCLH150

**SILICON
CURRENT LIMITING DIODE**



DO-35 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CCLH080 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 DO-35 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.

MARKING: FULL PART NUMBER

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

Peak Operating Voltage

Power Dissipation

Operating and Storage Junction Temperature

SYMBOL

P_{OV}

P_D

T_J, T_{stg}

50

600

-65 to +200

UNITS

V

mW

$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

Type	Regulator Current (Note 1) $I_P @ V_T=25\text{V}$			Minimum Dynamic Impedance $Z_T @ V_T=25\text{V}$	Minimum Knee Impedance $Z_K @ V_K=6.0\text{V}$	Maximum Limiting Voltage $V_L @ I_L=0.8 \times I_P \text{ MIN}$	Temperature Coefficient (Note 2) T_C
	MIN mA	NOM mA	MAX mA	k Ω	k Ω	V	%/ $^\circ\text{C}$
CCLH080	6.56	8.20	9.84	320	15	3.1	-0.25 to -0.45
CCLH100	8.00	10.0	12.0	170	6.0	3.5	-0.25 to -0.45
CCLH120	9.60	12.0	14.4	80	3.0	3.8	-0.25 to -0.45
CCLH150	12.0	15.0	18.0	30	2.0	4.3	-0.25 to -0.45

Notes: (1) Pulsed Method: Pulse Width (ms) = 27.5 divided by $I_P \text{ NOM}$ (mA)

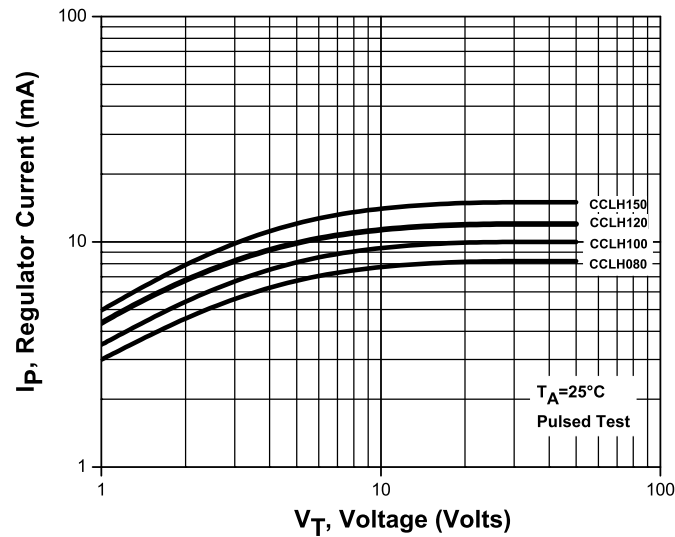
(2) The Temperature Coefficient is measured between + 25 $^\circ\text{C}$ and +50 $^\circ\text{C}$.

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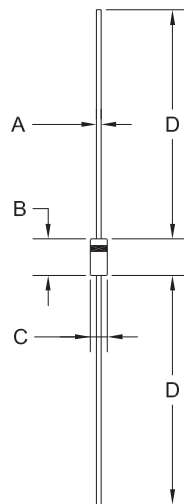
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Typical Regulator Current vs Voltage



DO-35 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.018	0.022	0.46	0.56
B	0.120	0.200	3.05	5.08
C	0.060	0.090	1.52	2.29
D	1.000	-	25.40	-

DO-35 (REV: R1)

MARKING: FULL PART NUMBER

R1

R2 (31-August 2012)

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 (2nd 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

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