

CCLM0035  
THRU  
CCLM5750

**SURFACE MOUNT SILICON  
CURRENT LIMITING DIODE**



SOD-80 CASE



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CCLM0035 series types are 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 savings and improved thermal characteristics. Special selections of  $I_P$  (regulator current) are available for critical applications.

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

**FEATURES:**

- Low Cost
- High Reliability
- Smaller Case Size than Competition
- Special Selections Available
- Superior Lot to Lot Consistency
- Leaded Devices Available

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

Peak Operating Voltage

Power Dissipation

Operating and Storage Junction Temperature

**SYMBOL**

$P_{OV}$

$P_D$

$T_J, T_{stg}$

100

800

-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)			Minimum Dynamic Impedance	Minimum Knee Impedance	Maximum Limiting Voltage	Temperature Coefficient (Note 2)
	$I_P @ V_T=25V$			$Z_T @ V_T=25V$	$Z_K @ V_K=6.0V$	$V_L @ I_L=0.8 \times I_P \text{ MIN}$	TC
	MIN (mA)	NOM (mA)	MAX (mA)	MΩ	MΩ	V	%/ $^\circ\text{C}$
CCLM0035	0.01	0.035	0.06	8.0	4.0	0.4	+2.10 to +0.10
CCLM0130	0.05	0.13	0.21	6.0	2.0	0.6	+2.10 to +0.10
CCLM0300	0.20	0.31	0.42	4.0	1.0	0.8	+0.40 to -0.20
CCLM0500	0.40	0.515	0.63	2.0	0.5	1.1	+0.15 to -0.25
CCLM0750	0.60	0.76	0.92	1.0	0.2	1.4	0.0 to -0.32
CCLM1000	0.88	1.1	1.32	0.65	0.1	1.7	-0.10 to -0.37
CCLM1500	1.28	1.5	1.72	0.45	0.07	2.0	-0.13 to -0.40
CCLM2000	1.68	2.0	2.32	0.35	0.05	2.3	-0.15 to -0.42
CCLM2700	2.28	2.69	3.1	0.30	0.03	2.7	-0.18 to -0.45
CCLM3500	3.0	3.55	4.1	0.25	0.02	3.2	-0.20 to -0.47
CCLM4500	3.9	4.5	5.1	0.20	0.01	3.7	-0.22 to -0.50
CCLM5750	5.0	5.75	6.5	0.05	0.005	4.5	-0.25 to -0.53

Notes:

1) Pulsed Method: Pulse Width (ms) = 27.5 divided by  $I_P$  NOM (mA)

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

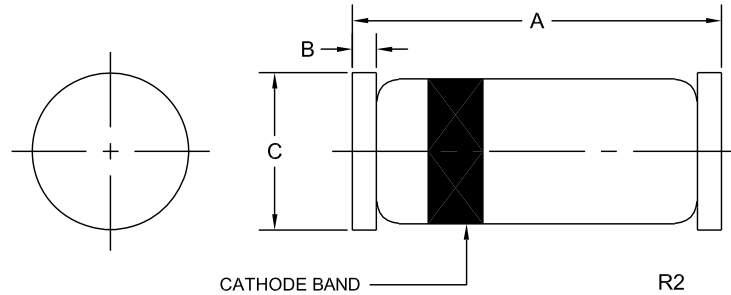
R6 (4-January 2010)

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SOD-80 CASE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.130	0.146	3.30	3.71
B	0.014		0.35	
C (DIA)	0.049	0.067	1.25	1.70

SOD-80 (REV:R2)

MARKING CODES			
TYPE	BAND 1*	BAND 2	BAND 3
CCLM0035	BLACK	LIGHT BLUE	WHITE
CCLM0130	BLACK	LIGHT BLUE	PINK
CCLM0300	BLACK	LIGHT BLUE	ORANGE
CCLM0500	BLACK	LIGHT BLUE	GREEN
CCLM0750	BLACK	LIGHT BLUE	DARK BLUE
CCLM1000	BLACK	GREEN	PINK
CCLM1500	BLACK	GREEN	ORANGE
CCLM2000	BLACK	GREEN	GREEN
CCLM2700	BLACK	GREEN	LIGHT BLUE
CCLM3500	BLACK	GREEN	DARK BLUE
CCLM4500	BLACK	GREEN	VIOLET
CCLM5750	BLACK	GREEN	WHITE

\* Cathode Band

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