CCL0035
THRU
CCL5750

SILICON
CURRENT LIMITING DIODES



DO-35 CASE

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CCL0035 thru CCL5750 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 DO-35 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. This series is the most cost effective of the current limiting diode family.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_L=75°C)	**SYMBOL**		**UNITS**
Peak Operating Voltage	P_{OV}	100	V
Power Dissipation	P_D	600	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

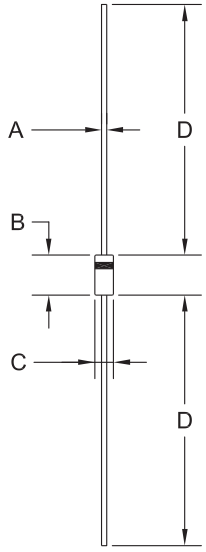
Type	Regulator Current (Note 1) I_P @ V_T=25V			Minimum Dynamic Impedance Z_T @ V_T=25V	Minimum Knee Impedance Z_K @ V_K=6.0V	Maximum Limiting Voltage V_L @ I_L=0.8 x I_P MIN	Temperature Coefficient (Note 2) TC
	MIN (mA)	NOM (mA)	MAX (mA)	MΩ	MΩ	V	%/°C
CCL0035	0.01	0.035	0.06	8.0	4.0	0.4	+2.10 to +0.10
CCL0130	0.05	0.130	0.21	6.0	2.0	0.6	+2.10 to +0.10
CCL0300	0.20	0.310	0.42	4.0	1.0	0.8	+0.40 to -0.20
CCL0500	0.40	0.515	0.63	2.0	0.5	1.1	+0.15 to -0.25
CCL0750	0.60	0.760	0.92	1.0	0.2	1.4	0.0 to -0.32
CCL1000	0.88	1.100	1.32	0.65	0.1	1.7	-0.10 to -0.37
CCL1500	1.28	1.500	1.72	0.45	0.07	2.0	-0.13 to -0.40
CCL2000	1.68	2.000	2.32	0.35	0.05	2.3	-0.15 to -0.42
CCL2700	2.28	2.690	3.10	0.30	0.03	2.7	-0.18 to -0.45
CCL3500	3.00	3.550	4.10	0.25	0.02	3.2	-0.20 to -0.47
CCL4500	3.90	4.500	5.10	0.20	0.01	3.7	-0.22 to -0.50
CCL5750	5.00	5.750	6.50	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°C and +50°C.

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DO-35 CASE - MECHANICAL OUTLINE



R1

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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)

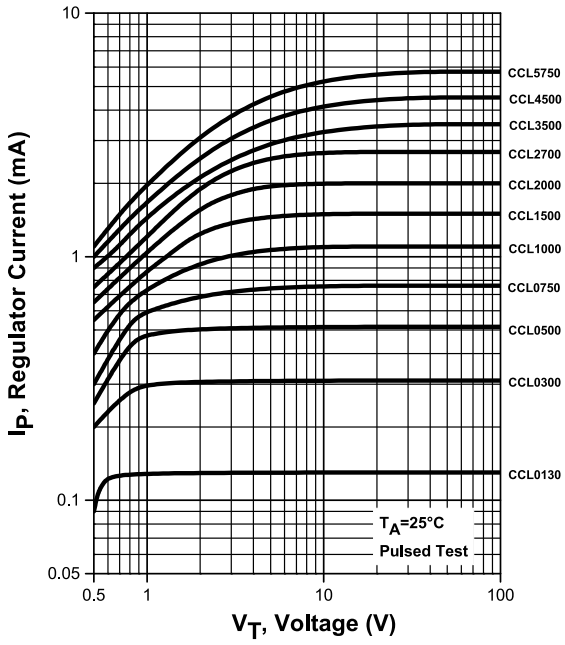
MARKING: FULL PART NUMBER

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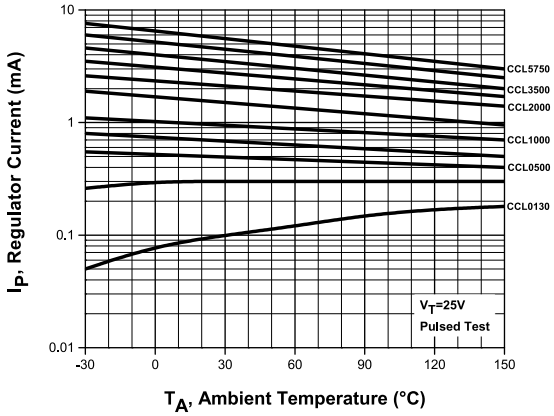
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TYPICAL ELECTRICAL CHARACTERISTICS

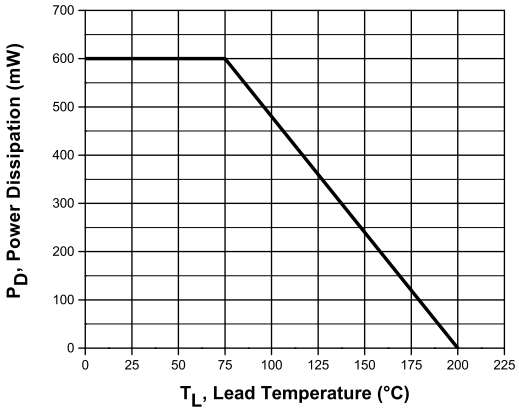
Regulator Current vs Voltage



Nominal Regulator Current vs Temperature



Power Derating



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
- 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

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).
2. 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

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centralsemi.com

Worldwide Field Representatives:
www.centralsemi.com/wwreps

Worldwide Distributors:
www.centralsemi.com/wwdistributors

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centralsemi.com/terms

http://www.centralsemi.com

Product End of Life Notification

PDN ID:	PDN01212
Notification Date:	2/22/22
Last Buy Date:	8/22/22
Last Shipment Date	2/22/23

Summary:The CCL0035 Current Limiting Diode (CLD) is discontinued and now classified as End Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.**

Central Part Number	Suggested Replacement
CCL0035 BK	N/A
CCL0035 TR	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. If you would like assistance, please visit https://my.centralsemi.com/submit-inquiry?type=ER to submit an online inquiry.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.