



**INTERNATIONAL
SEMICONDUCTOR, INC.**

CURRENT REGULATOR DIODES

A CRD is a Field Effect Diode which supplies constant current to an electronic circuit, even when power supply voltage fluctuations or load impedance changes occur. A CRD is used for current stabilization and current limiting.

- DO-35 Package
- High Source Impedance
- Constant Current Over Wide Voltage Range
- May be connected in parallel for higher currents

BROAD CURRENT RANGE

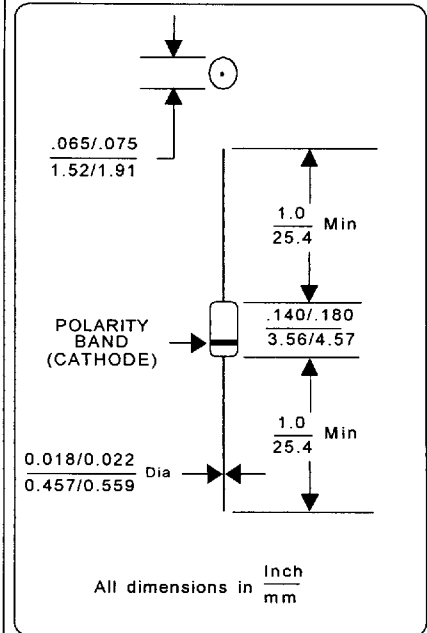
Part Number	I_p (mA) Nominal	I_p (mA) Tolerance	I_p Test Voltage	Z_r Min K Ohm	Z_k Min K Ohm	V_L V Max.	P.O.V.	Base Type
MCL1300	0.5	± 0.3	25	4.00	0.500	1.0	75	E-501
MCL1301	1.0	± 0.6	25	0.80	0.200	1.5	75	E-701
MCL1302	2.0	± 0.6	25	0.40	0.100	2.0	75	E-202
MCL1303	3.0	± 0.6	25	0.30	0.050	2.0	75	E-272S
MCL1304	4.0	± 0.6	25	0.25	0.025	2.5	75	E-352S

STANDARD LINE

Part Number	I_p - milliamps		V_k Max Volts	Z_k Min Meg Ohm
	Min.	Max.		
E-101L	0.01	0.06	0.4	8.00
E-101	0.05	0.21	0.5	6.00
E-301	0.20	0.42	0.8	4.00
E-501	0.40	0.63	1.1	2.00
E-701	0.60	0.92	1.4	1.00
E-102	0.88	1.32	1.7	0.65
E-152	1.28	1.72	2.0	0.40
E-202	1.68	2.32	2.3	0.25
E-272	2.28	3.10	2.7	0.15
E-352	3.00	4.10	3.2	0.10
E-452	3.90	5.10	3.7	0.07
E-562	5.00	6.50	4.5	0.04
E-822	6.56	9.84	3.1	0.32
E-103	8.00	12.0	3.5	0.17
E-123	9.60	14.4	3.8	0.08
E-153	12.00	18.0	4.3	0.03

I_p = Pinch-Off Current: measured by pulse at 25 °C
 V_k = Voltage which produces 0.81 I_p or greater current
 Z_r = Minimum AC Impedance when small AC signal voltage of 10 KHz is added to 25 Volt DC bias.
 Z_k = Minimum knee impedance when the small AC signal voltage is added to V_k .

MCL1300 thru MCL1304



DO-35

DESIGN DATA

CASE: Hermetically sealed glass case. DO-35 Outline.

LEAD MATERIAL:
Copper Clad Steel

LEAD FINISH: Tin Plate

THERMAL RESISTANCE:
250 °C/w (Typical)
junction to ambient.

POLARITY: Diode to be operated with the banded (cathode) end positive with respect to the opposite end

WEIGHT: 0.14 Grams

MOUNTING POSITION: Any

252 Cox Street, Roselle, NJ, USA, 07203-1704 ■ 908 245-2233

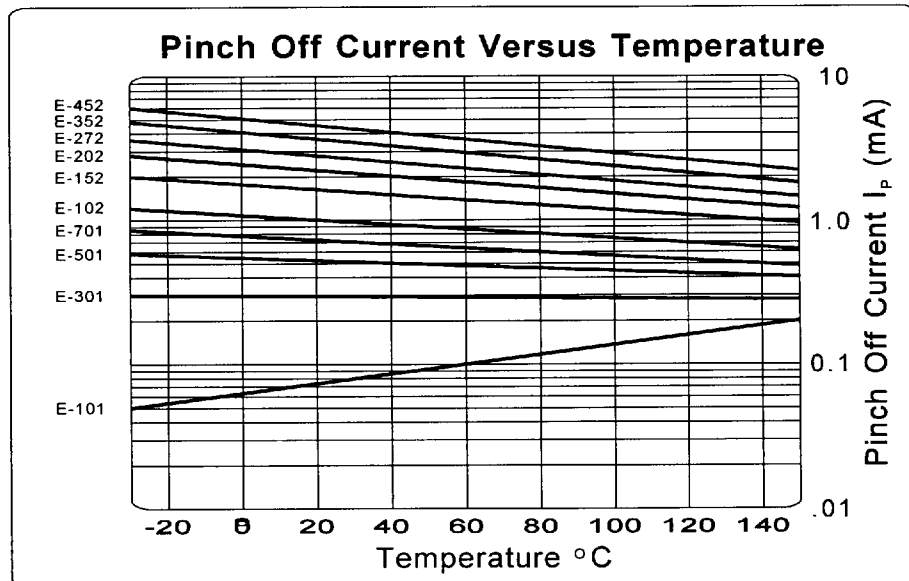
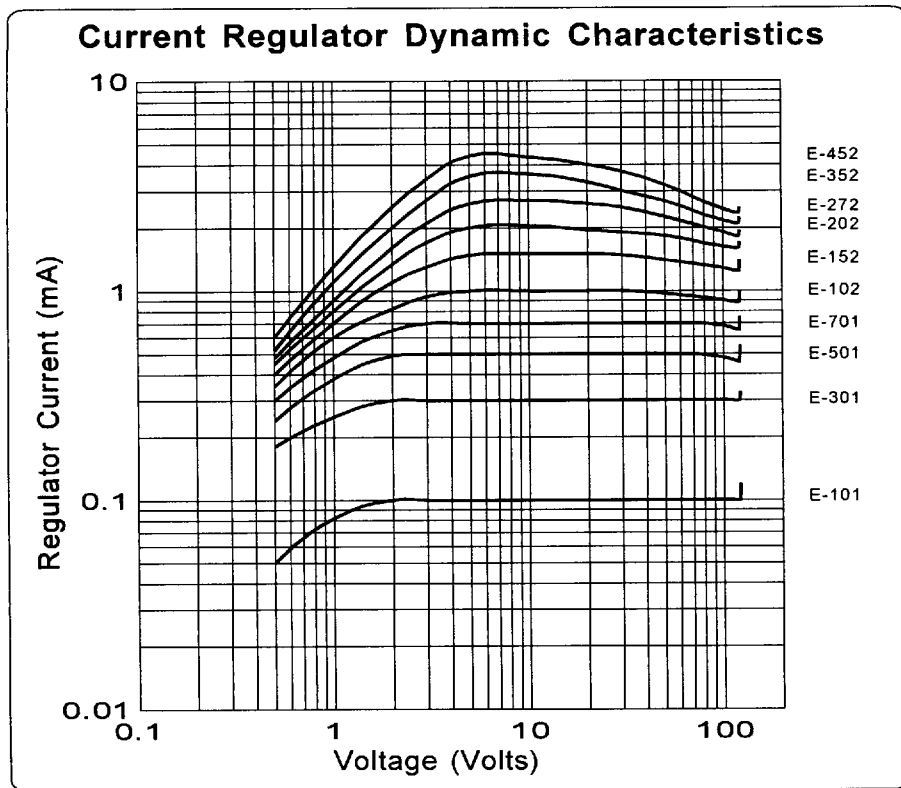
Toll-Free (800) 392-2474

Fax: (908) 245-5541

■ 9000378 0000853 188 ■

389

MCL1300 thru MCL1304 CHARACTERISTIC CURVES



INTERNATIONAL SEMICONDUCTOR, INC.

■ 9000378 0000854 014 ■

390