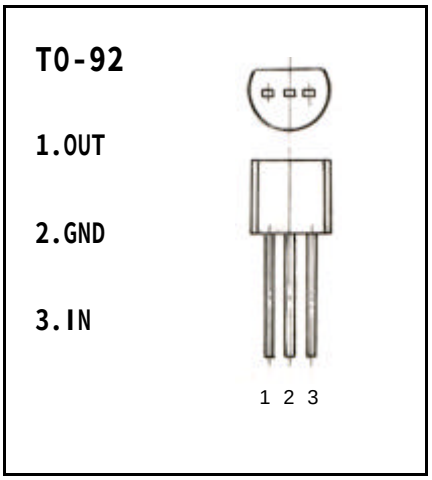
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-92 Encapsulate Three-terminal Voltage Regulator

CJ78L05 Three-terminal positive voltage regulator



FEATURES

Maximum Output current

I_{OM}: 0.1 A

Output voltage

V_o: 5 V

ABSOLUTE MAXIMUM RATINGS（Operating temperature range applies unless otherwise specified）

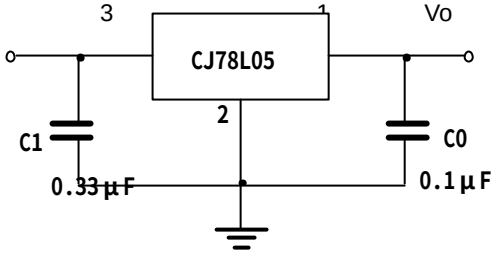
Parameter	Symbol	Value	Unlts
Input Voltage	V_I	30	V
Operating Junction Temperature Range	T_{OPR}	0—+125	℃
Storage Temperature Range	T_{STG}	-55-+150	℃

ELECTRICAL CHARACTERISTICS

(VI=10V,Io=40mA,0℃<Tj<125℃,C1=0.33μF,Co=0.1μF, unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	Vo	Tj=25℃	4.8	5.0	5.2	V
		7V≤V_I≤20V, Io=1mA-40mA	4.75	5.0	5.25	V
		7V≤V_I≤20V, Io=1mA-70mA	4.75	5.0	5.25	V (note)
Load Regulation	△Vo	Tj=25℃, Io=1mA-100mA		11	60	mV
		Tj=25℃, Io=1mA-40mA		5.0	30	mV
Line regulation	△Vo	7V≤V_I≤20V, Tj=25℃		32	150	mV
		8V≤V_I≤20V, Tj=25℃		26	100	mV
Quiescent Current	Iq	Tj=25℃		3.8	6	mA
Quiescent Current Change	△Iq	8V≤V_I≤20V			1.5	mA
	△Iq	1mA≤I_o≤40mA			0.1	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz		42		uV
Ripple Rejection	RR	8V≤V_I≤18V,f=120Hz,Tj=25℃	41	49		dB
Dropout Voltage	Vd	Tj=25℃		1.7		V

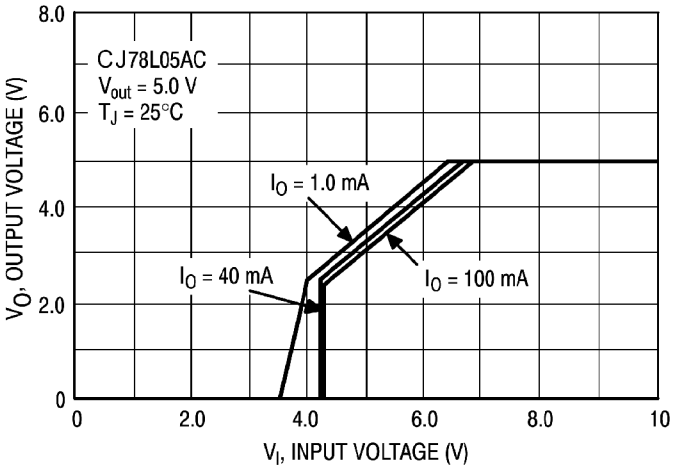
TYPICAL APPLICATION



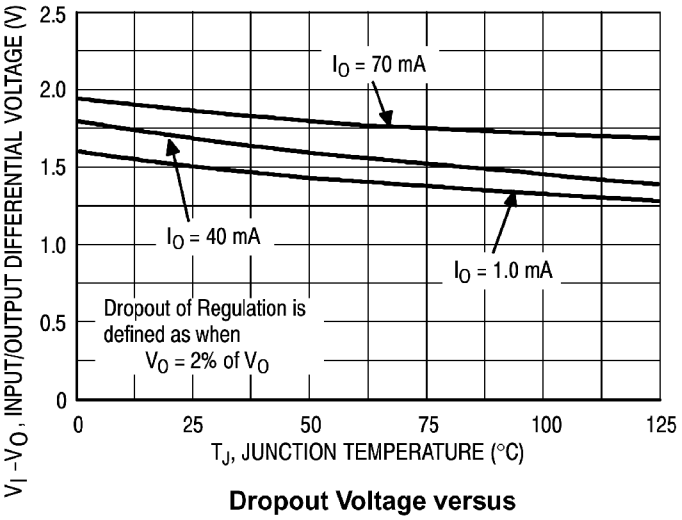
Note : Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

Typical Characteristics

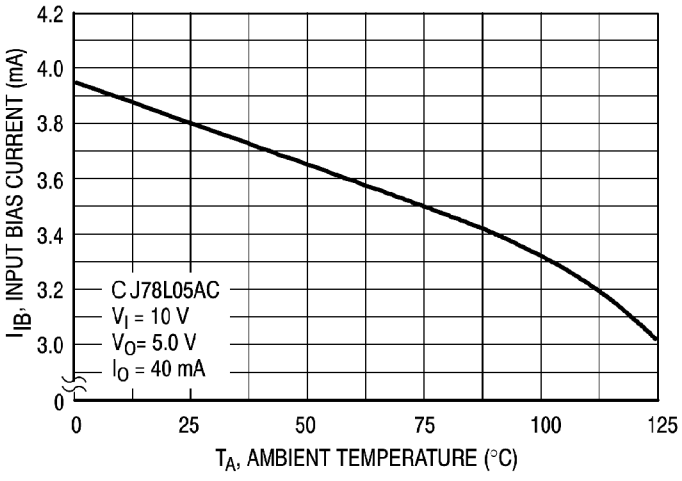
CJ78L05



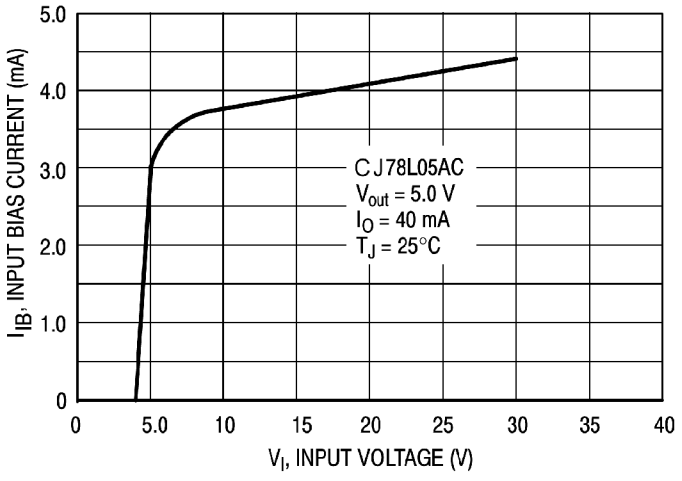
Dropout Characteristics



Dropout Voltage versus Junction Temperature

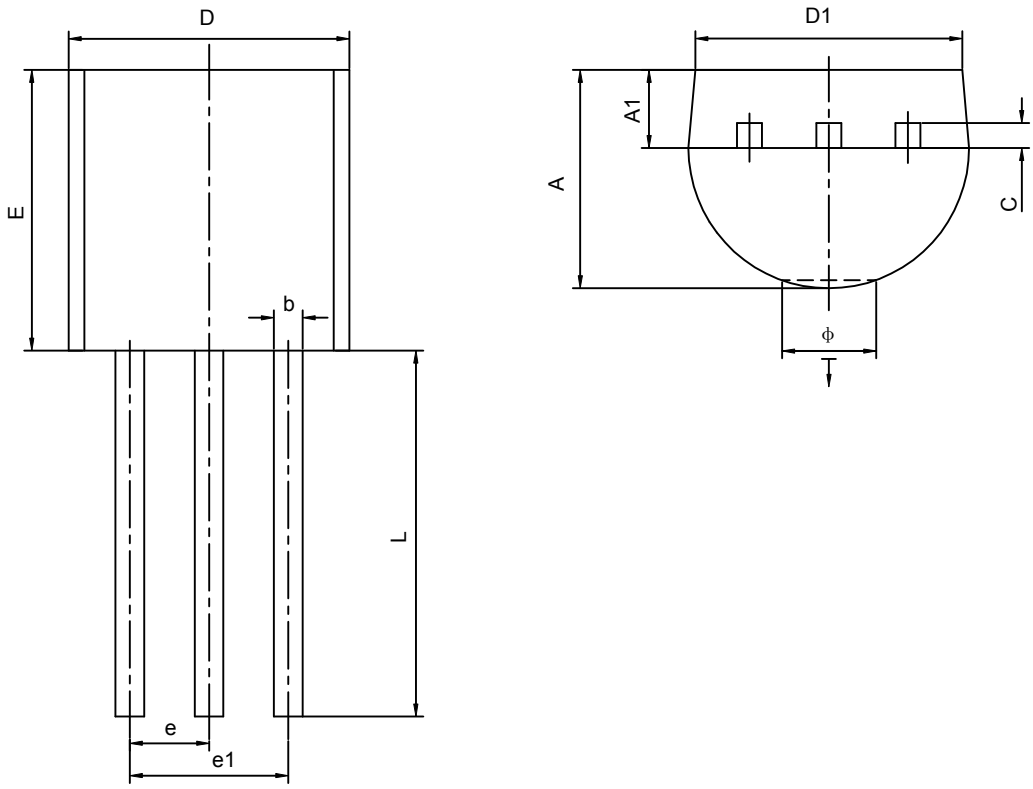


Input Bias Current versus Ambient Temperature



Input Bias Current versus Input Voltage

TO-92 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.400	4.700	0.173	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270TYP		0.050TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Ö		1.600		0.063
⊤	0.000	0.380	0.000	0.015