

## TO-92 Plastic-Encapsulate Transistors

# 79L05

### CJ79L05 Three-terminal negative voltage regulator

#### FEATURES

Maximum Output current

$I_{OM}$ : 0.1 A

Output voltage

$V_o$ : -5 V

TO-92

1. GND

2. IN

3. OUT



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

Parameter	Symbol	Value	Units
Input Voltage	$V_i$	-30	V
Operating Junction Temperature Range	$T_{OPR}$	0~+125	°C
Storage Temperature Range	$T_{STG}$	-55~+150	°C

ELECTRICAL CHARACTERISTICS ( $V_i = -10V, I_o = 40mA, 0^\circ C < T_j < 125^\circ C, C_1 = 0.33\mu F, C_o = 0.1\mu F$ , unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$T_j = 25^\circ C$	-4.8	-5.0	-5.2	V
		$-7V \leq V_i \leq -20V, I_o = 1mA \sim 40mA$	-4.75	-5.0	-5.25	V
		$-7V \leq V_i \leq V_{MAX}, I_o = 1mA \sim 70mA$	-4.75	-5.0	-5.25	V (note)
Load Regulation	$\Delta V_o$	$T_j = 25^\circ C, I_o = 1mA \sim 100mA$		11	60	mV
		$T_j = 25^\circ C, I_o = 1mA \sim 40mA$		5.0	30	mV
Line regulation	$\Delta V_o$	$-7V \leq V_i \leq -20V, T_j = 25^\circ C$		32	150	mV
		$-8V \leq V_i \leq -20V, T_j = 25^\circ C$		26	100	mV
Quiescent Current	$I_q$	$25^\circ C$		3.8	6	mA
Quiescent Current Change	$\Delta I_q$	$-8V \leq V_i \leq -20V$			1.5	mA
	$\Delta I_q$	$1mA \leq V_i \leq 40mA$			0.1	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz$		42		$\mu V$
Ripple Rejection	RR	$-8V \leq V_i \leq -18V, f = 120Hz, T_j = 25^\circ C$	41	49		dB
Dropout Voltage	$V_d$	$T_j = 25^\circ C$		1.7		V

TYPICAL APPLICATION

