

Encapsulate Three Terminal Voltage Regulators

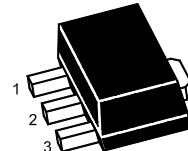
Three-terminal negative voltage regulator

FEATURES

- Maximum output current
 I_{OM} : 0.1A
- Output voltage
 V_o : -5 V
- Continuous total dissipation
 P_D : 0.5 W

SOT-89 Plastic Package

1. GND
2. IN
3. OUT



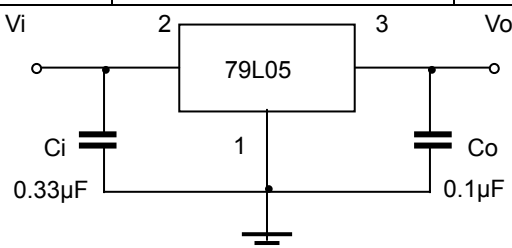
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

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

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i = -10V, I_o = 40mA, C_i = 0.33\mu F, C_o = 0.1\mu F$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	$25^\circ C$	-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
		$I_o = 1mA \sim 70mA$	-4.75	-5.0	-5.25	V
Load Regulation	ΔV_o	$I_o = 1mA \sim 100mA$		20	60	mV
		$I_o = 1mA \sim 40mA$		10	30	mV
Line Regulation	ΔV_o	$-7V \leq V_i \leq -20V$		15	150	mV
		$-8V \leq V_i \leq -20V$		12	100	mV
Quiescent Current	I_q	$25^\circ C$			6	mA
Quiescent Current Change	ΔI_q	$-8V \leq V_i \leq -20V$			1.5	mA
	ΔI_q	$1mA \leq V_i \leq -40mA$			0.1	mA
Output Noise Voltage	V_N	$10Hz \leq f \leq 100KHz$		40		μV
Ripple Rejection	RR	$-8V \leq V_i \leq -18V, f = 120Hz$	41	49		dB
Dropout Voltage	V_d	$25^\circ C$		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.