

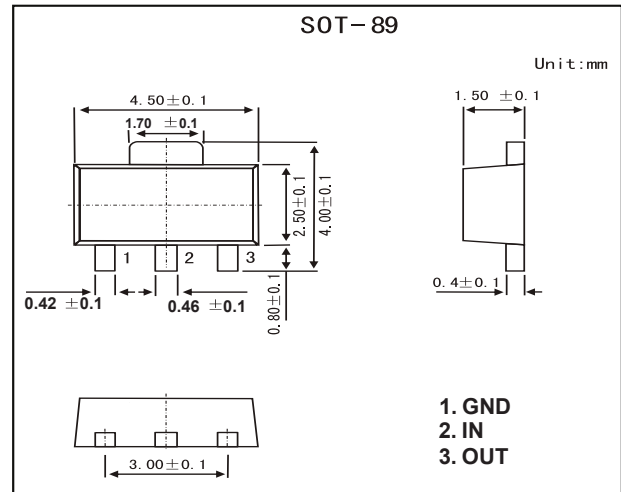
Three-Terminal Negative Voltage Regulator

FEATURES

- Maximum Output current I_{OM}: 0.1 A
- Output voltage V_o: -5 V
- Continuous total dissipation P_D: 0.5 W
- Marking: 79L05

MECHANICAL DATA

- Case: SOT-89 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any



ABSOLUTE MAXIMUM RATINGS

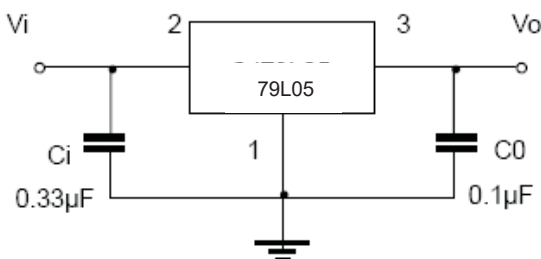
(Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Rating	Unit
Input Voltage	V _i	-30	V
Operating Junction Temperature Range	TOPR	-55 to +125	°C
Storage Temperature Range	TSTG	-55 to +150	°C

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V _o	T _j = 25°C	-4.8	-5.0	-5.2	V
		-7V ≤ V _i ≤ -20V, I _o = 1mA-40mA	-4.75	-5.0	-5.25	V
		I _o = 1mA-70mA	-4.75	-5.0	-5.25	V
Load regulation	ΔV _o	T _j = 25°C, I _o = 1mA-100mA		11	60	mV
		T _j = 25°C, I _o = 1mA-40mA		5.0	30	mV
Line regulation	ΔV _o	-7V ≤ V _i ≤ -20V, T _j = 25°C		32	150	mV
		-8V ≤ V _i ≤ -20V, T _j = 25°C		26	100	mV
Quiescent current	I _q	T _j = 25°C		3.8	6	mA
Quiescent current change	ΔI _q	0°C < T _j < 125°C, -8V ≤ V _i ≤ -20V			1.5	mA
	ΔI _q	0°C < T _j < 125°C, 1mA ≤ I _o ≤ 40mA			0.1	mA
Output noise voltage	V _N	10Hz ≤ f ≤ 100kHz, T _j = 25°C		42		μV
Ripple rejection	RR	-8V ≤ V _i ≤ -18V, f = 120Hz	41	49		dB
Dropout voltage	V _d	T _j = 25°C,		1.7		V

■ Typical Application

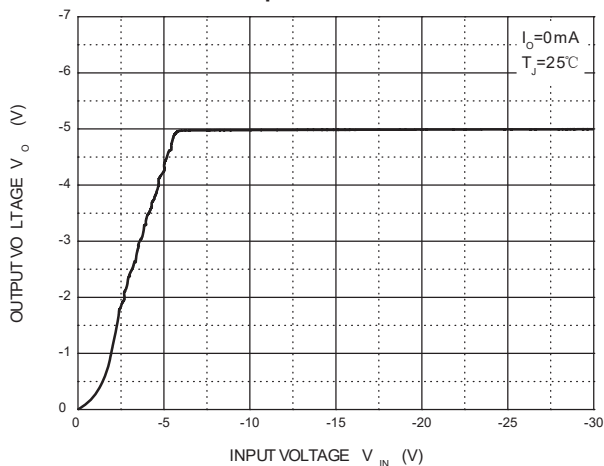


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

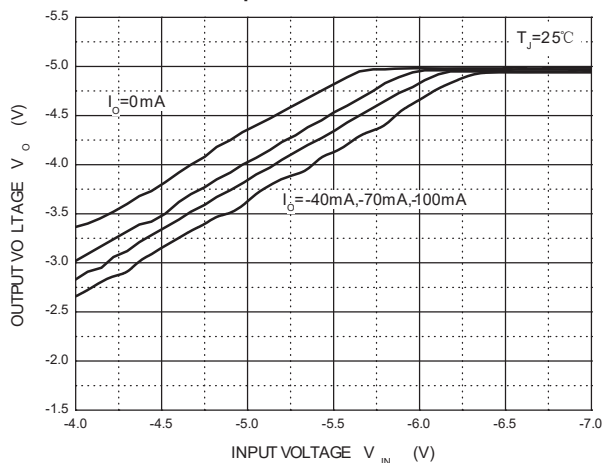
RATINGS AND CHARACTERISTIC CURVES

■ Typical Characteristics

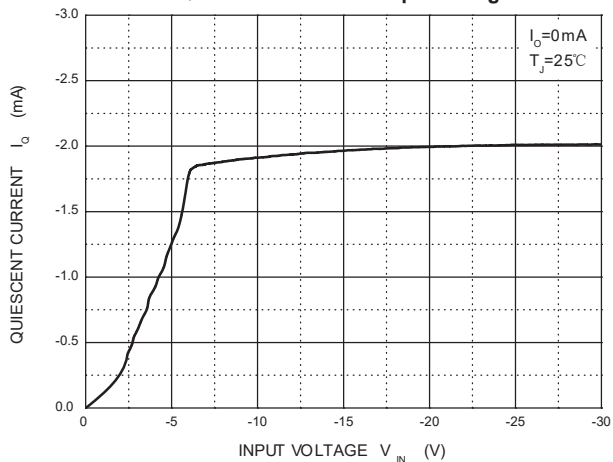
Output Characteristics



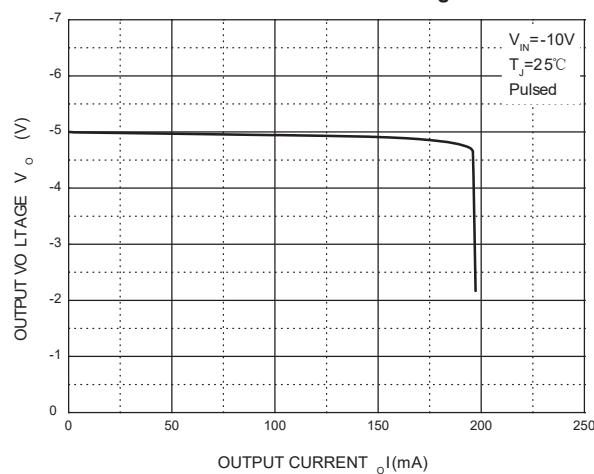
Dropout Characteristics



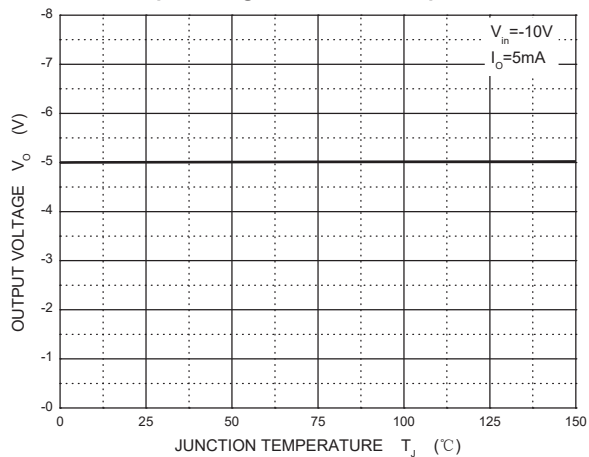
Quiescent Current vs Input Voltage



Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve

