

Encapsulate Three Terminal Voltage Regulators

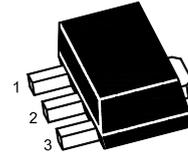
Three-terminal negative voltage regulator

FEATURES

- Maximum output current
 I_{OM} : 0.1 A
- Output voltage
 V_o : -6 V
- Continuous total dissipation
 P_D : 0.5 W

SOT-89 Plastic Package

1. GND
2. IN
3. OUT



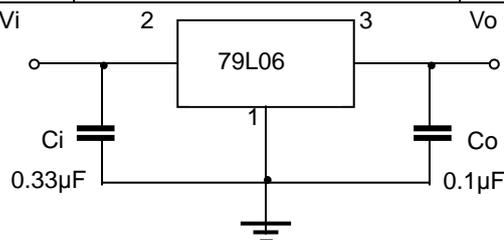
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

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 ($V_i=-11V, I_o=40mA, C_i=0.33\mu F, C_o=0.1\mu F$, unless otherwise specified)

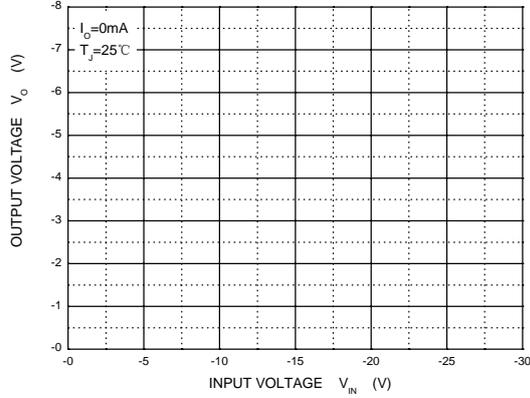
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	V_o	25°C	-5.75	-6.0	-6.25	V
		-8V ≤ V_i ≤ -20V, $I_o=1mA\sim 40mA$	-5.7	-6.0	-6.3	V
		0-125°C, $I_o=1mA\sim 70mA$	-5.7	-6.0	-6.3	V
Load Regulation	ΔV_o	$I_o=1mA\sim 100mA$, 25°C		21	80	mV
		$I_o=1mA\sim 40mA$, 25°C		11	40	mV
Line Regulation	ΔV_o	-8V ≤ V_i ≤ -20V, 25°C		20	175	mV
		-9V ≤ V_i ≤ -20V, 25°C		15	125	mV
Quiescent Current	I_q	25°C		3.9	6.0	mA
Quiescent Current Change	ΔI_q	-9V ≤ V_i ≤ -20V, 0-125°C			1.5	mA
	ΔI_q	1mA ≤ V_i ≤ 40mA, 0-125°C			0.1	mA
Output Noise Voltage	V_N	10Hz ≤ f ≤ 100KHz, 25°C		44		μV
Ripple Rejection	RR	-9V ≤ V_i ≤ -19V, $f=120HZ$, 0-125°C	40	48		dB
Dropout Voltage	V_d	25°C		1.7		V

TYPICAL APPLICATION

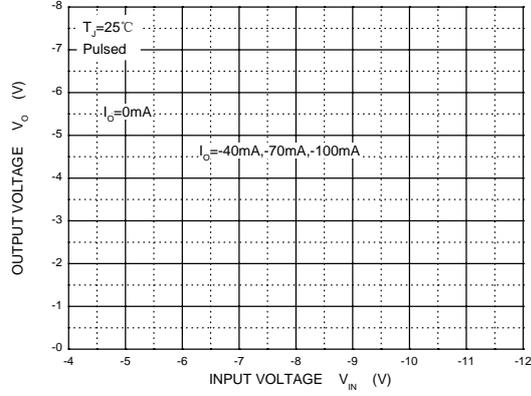


Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close possible to the regulators.

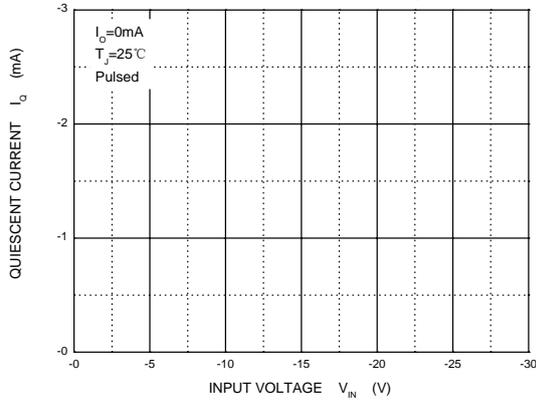
Output Characteristics



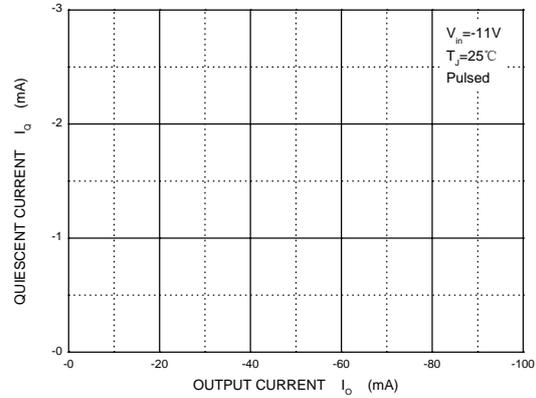
Dropout Characteristics



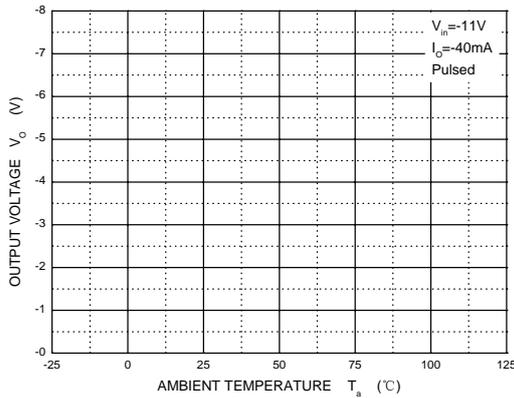
Quiescent Current vs Input Voltage



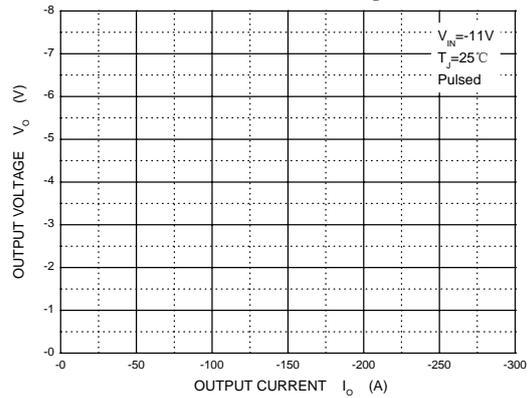
Quiescent Current vs Output Current



Output Voltage vs Ambient Temperature



Current Cut-off Grid Voltage



Power Derating Curve

