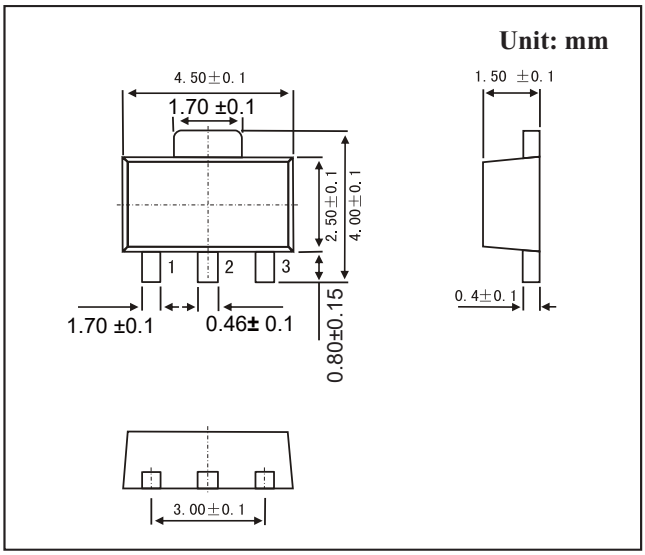
SOT-89 Three-Terminal Negative Voltage Regulator

FEATURES

- Maximum Output current IOM: 0.1 A
- Output voltage Vo: -5 V
- Continuous total dissipation PD: 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

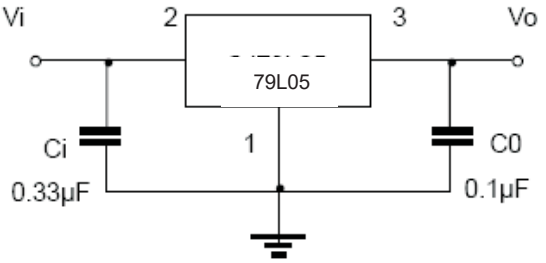
(Operating temperature range applies unless otherw ise specified)

Parameter	Symbol	Rating	**Unit**
Input Voltage	V i	-30	**V**
Operating Junction Temperature Range	TOPR	-55 to +125	℃
Storage Temperature Range	TSTG	-55 to +150	℃

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JINCTION TEMPERATURE (Vl=-10V,Io=40mA,Ci=0.33μ F,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 ≤Vi -20V, Io=1mA-40mA	-4.75	-5.0	-5.25	V
		Io=1mA-70mA	-4.75	-5.0	-5.25	V
Load regulation	△Vo	Tj=25 ℃,Io=1mA-100mA		11	60	mV
		Tj=25 ℃,Io=1mA-40mA		5.0	30	mV
Line regulation	△Vo	-7V ≤Vi -20V, Tj=25 ℃		32	150	mV
		-8V ≤Vi -20V, Tj=25 ℃		26	100	mV
Quiescent current	Iq	Tj=25 ℃		3.8	6	mA
Quiescent current change	△Iq	0 ℃≤Tj<125 , -8V ≤Vi≤-20V			1.5	mA
	△Iq	0 ℃≤Tj<125 ,1mA≤Io≤40mA			0.1	mA
Output noise voltage	VN	10Hz ≤f≤100KHz,Tj=25 ℃		42		uV
Ripple rejection	RR	-8V ≤Vi -18V,f=120Hz	41	49		dB
Dropout voltage	Vd	Tj=25 ℃		1.7		V

■ Typical Application

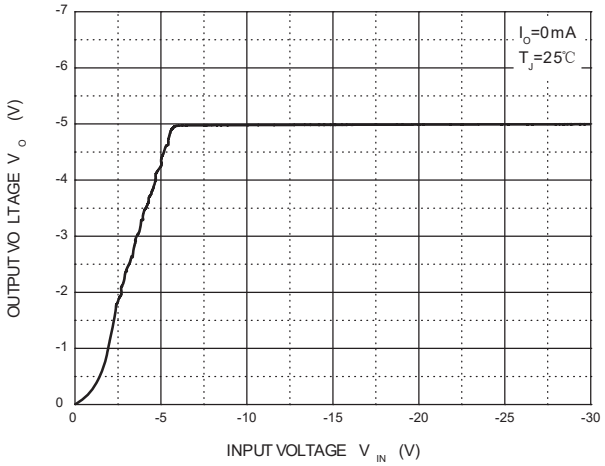


Note : Bypass capacitors are recommended for optimum stability and transient response and should be located as close as Possible to the regulators.

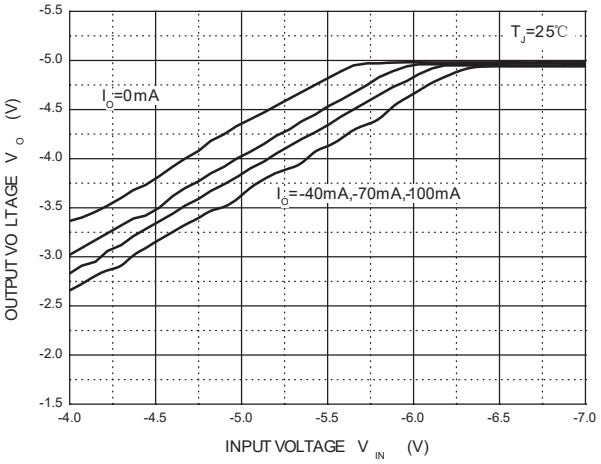
RATINGS AND CHARACTERISTIC CURVES

■ Typical Characterisitics

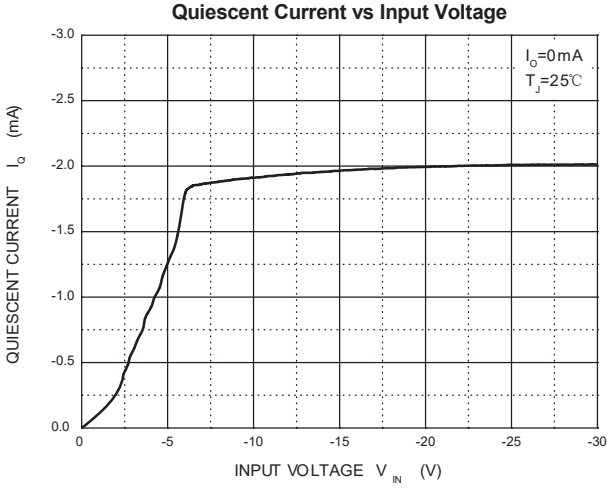
Output Characteristics



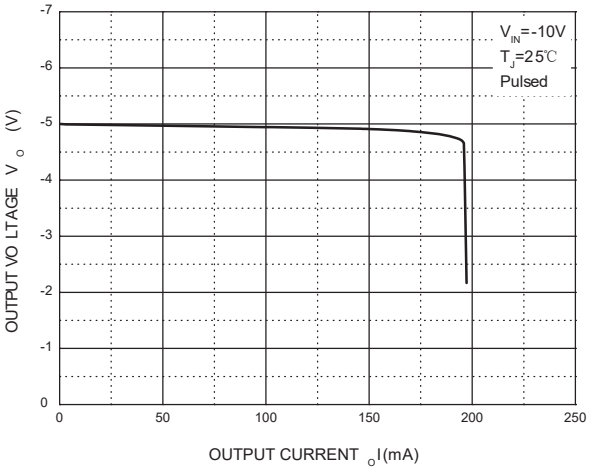
Dropout Characteristics



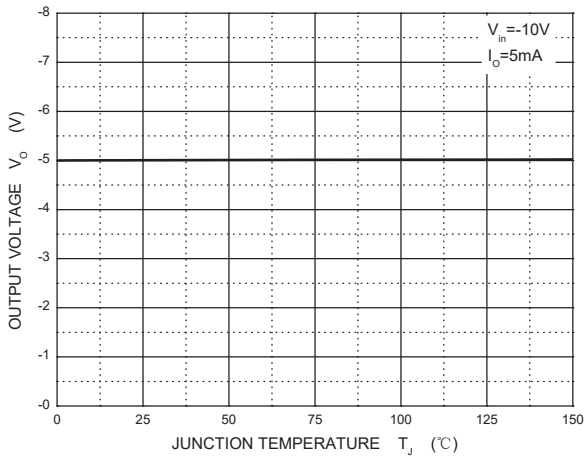
Quiescent Current vs Input Voltage



Current Cut-off Grid Voltage



Output Voltage vs Junction Temperature



Power Derating Curve