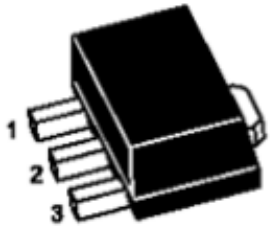
SOT-89 Plastic-Encapsulate Voltage Regulators

LM79L05A

Three-terminal negative voltage regulator

SOT-89
Surface Mount
Plastic Package



Pin Confugration
1.Ground
2. In
3.Out

Features

1. Maximum Output current IO: 0.1A
2. Output voltage V_O: -5V
3. Continuous total dissipation P_D: 0.625W (T_a = 25°C)

Absolute Maximum Ratings (Operating temperature range applies unless otherwise specified)

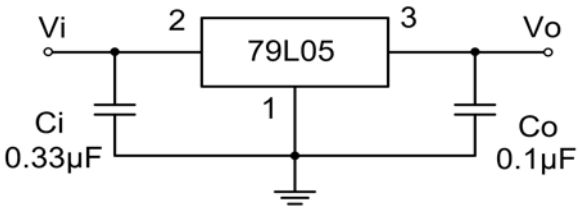
DESCRIPTION	SYMBOL	VALUE	UNIT
Input Voltage	V_i	-30	V
Thermal Resistance from Junction	$R_{\theta JA}$	200	°C/W
Operating Junction Temperature	T_{OPR}	0 to +150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Electrical Characteristics at Specified Virtual Junction Temperature

(Vi=-10V, Io=40mA, Ci=0.33μF, Co=0.1μF, unless otherwise specified)

DESCRIPTION	SYMBOL	Test Conditions		VALUE			Unit
				Min	Typ	Max	
Output Voltage	V_o		25°C	-4.8	-5.00	-5.20	V
		-7V≤ Vi ≤-20V, I_O=1mA to 40mA	0-125°C	-4.75	-5.00	-5.25	V
		I_O=1mA to 70mA	0-125°C	-4.75	-5.00	-5.25	V
Load Regulation	ΔV_o	I_O=1mA ~ 100mA	25°C		20	60	mV
		I_O=1mA ~ 40mA	25°C		10	30	mV
Line Regulation	ΔV_o	-7V≤ Vi ≤-20V	25°C		15	150	mV
		-8V≤ Vi ≤-20V	25°C		12	100	mV
Quiescent Current	I_q		25°C			6	mA
Quiescent Current Change	ΔIq	-8V≤ Vi ≤-20V	0-125°C			1.5	mA
		1mA≤I_O≤40mA	0-125°C			0.1	mA
Output Noise Voltage	VN	f =10Hz to 100KHz	25°C		40		μV
Ripple Rejection	RR	f =120Hz,-8V≤ Vi ≤ -18V	0-125°C	41	49		dB
Dropout Voltage	Vd		25°C		1.7		V

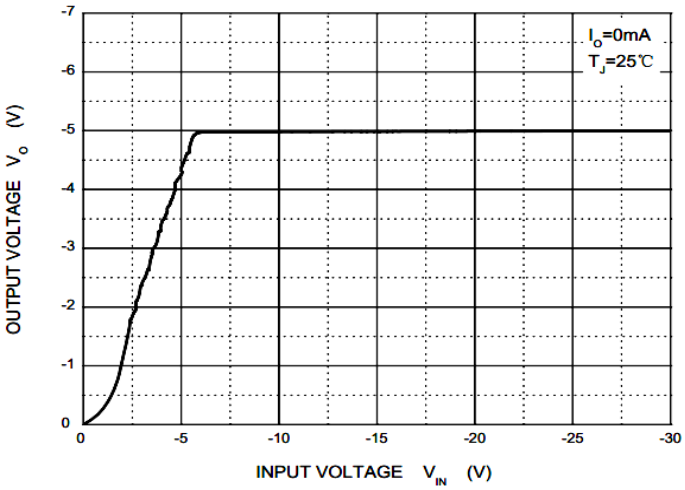
Typical Application



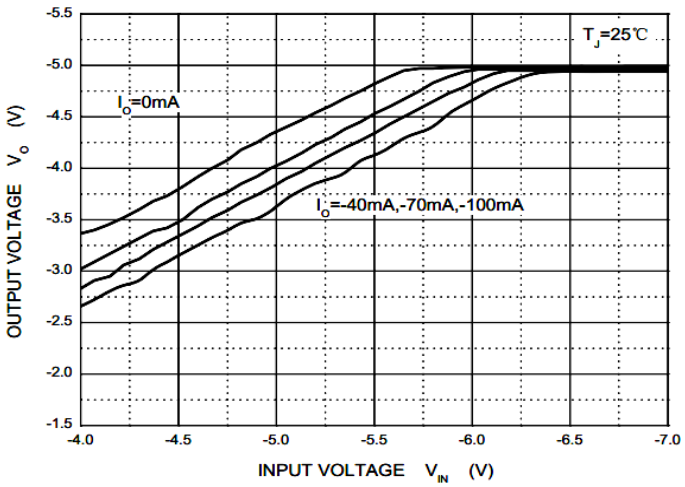
Note: Bypass capacitors are recommended for optimum stability and transient response and should be located as close as Possible to the regulators.

Typical Characteristics

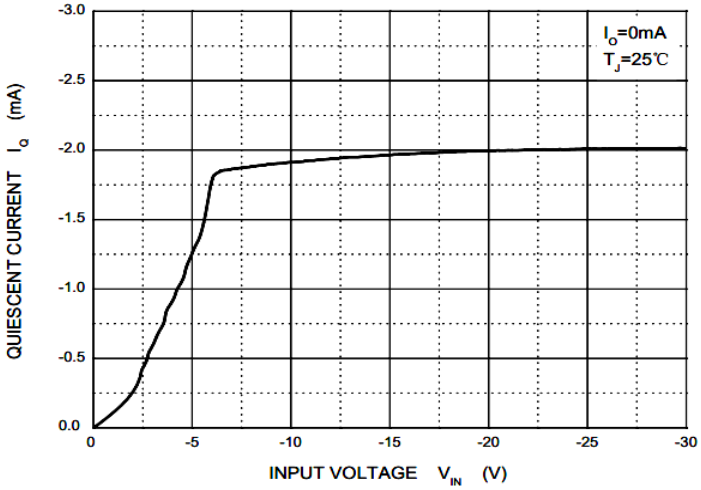
Output Characteristics



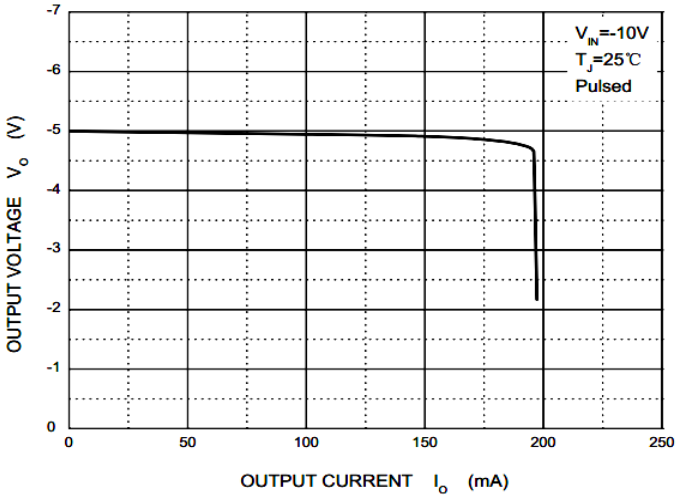
Dropout Characteristics



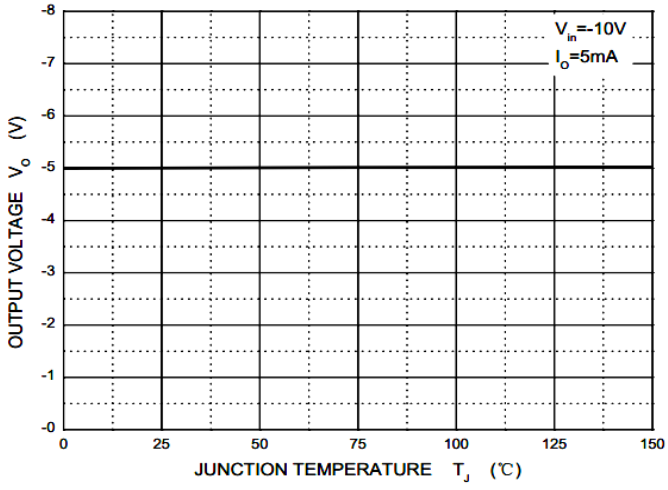
Quiescent Current vs Input Voltage



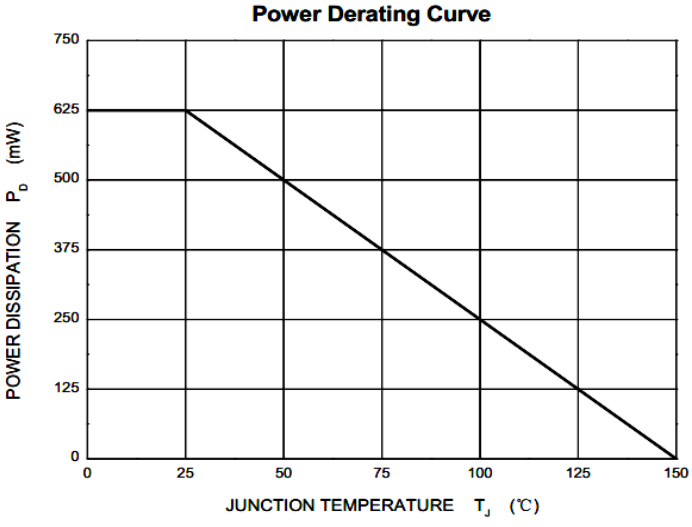
Current Cut-off Grid Voltage



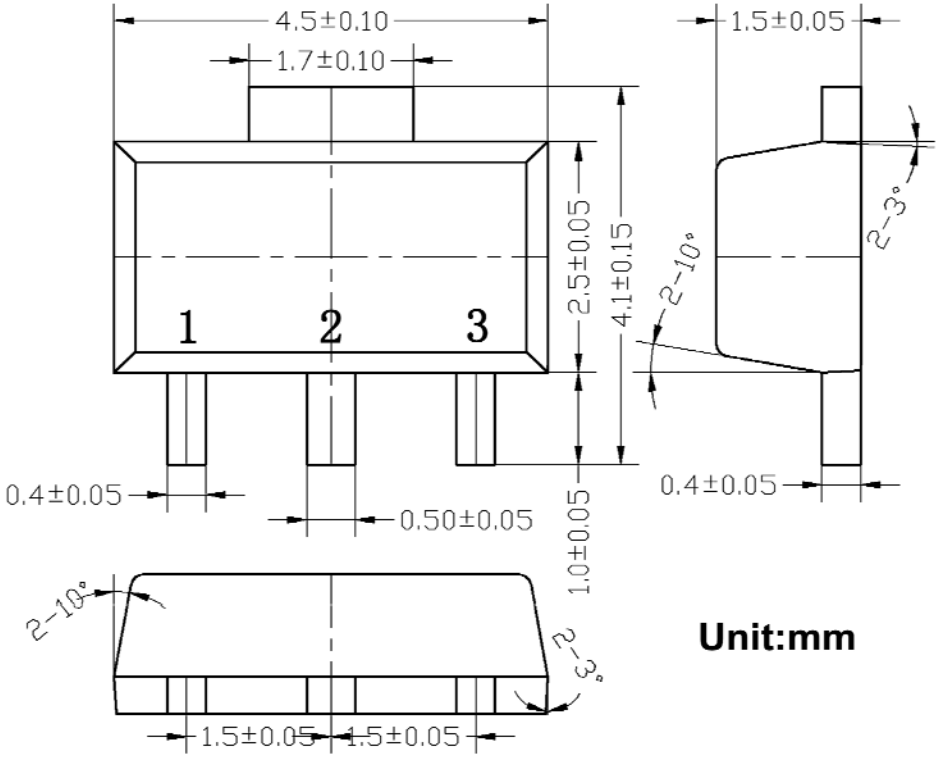
Output Voltage vs Junction Temperature



Power Derating Curve



Package Details



Unit:mm

1 Ground
2 IN
3 OUT

Customer Notes

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.

2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

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