



**79L05** Three-terminal negative voltage regulator

TO-92

**FEATURES**

- Maximum output current  
 $I_{OM}: 0.1A$
- Output voltage  
 $V_o: -5V$
- Continuous total dissipation  
 $P_D: 0.625W (T_a = 25^\circ C)$

1. GND

2. IN

3. OUT



**ORDERING INFORMATION**

Part Number	Package	Packing Method	Pack Quantity
79L05	TO-92	Bulk	1000pcs/Bag
79L05-TA	TO-92	Tape	2000pcs/Box

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

Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	-30	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	200	$^\circ C/W$
Operating Junction Temperature Range	$T_{OPR}$	0~+150	$^\circ C$
Storage Temperature Range	$T_{STG}$	-65~+150	$^\circ C$

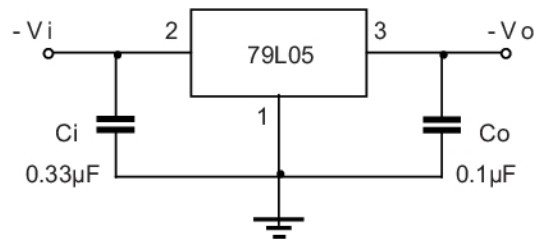
## ELECTRICAL CHARACTERISTICS

$T_a=25^\circ\text{C}$  unless otherwise specified ( $V_i=-10\text{V}, I_o=40\text{mA}, C_i=0.33\ \mu\text{F}, C_o=0.1\ \mu\text{F}$ , unless otherwise specified )

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output Voltage	$V_o$	$25^\circ\text{C}$	-4.8	-5.0	-5.2	V
		$-7\text{V}\leq V_i\leq -20\text{V}, I_o=1\text{mA}\sim 40\text{mA}$	-4.75	-5.0	-5.25	V
		$I_o=1\text{mA}\sim 70\text{mA}$	-4.75	-5.0	-5.25	V
Load Regulation	$\Delta V_o$	$I_o=1\text{mA}\sim 100\text{mA}$	$25^\circ\text{C}$	20	60	mV
		$I_o=1\text{mA}\sim 40\text{mA}$	$25^\circ\text{C}$	10	30	mV
Line Regulation	$\Delta V_o$	$-7\text{V}\leq V_i\leq -20\text{V}$	$25^\circ\text{C}$	15	150	mV
		$-8\text{V}\leq V_i\leq -20\text{V}$	$25^\circ\text{C}$	12	100	mV
Quiescent Current	$I_q$	$25^\circ\text{C}$			6	mA
Quiescent Current Change	$\Delta I_q$	$-8\text{V}\leq V_i\leq -20\text{V}$	$0\sim 125^\circ\text{C}$		1.5	mA
	$\Delta I_q$	$1\text{mA}\leq V_i\leq 40\text{mA}$	$0\sim 125^\circ\text{C}$		0.1	mA
Output Noise Voltage	$V_N$	$10\text{Hz}\leq f\leq 100\text{KHz}$	$25^\circ\text{C}$	40		$\mu\text{V}/V_o$
Ripple Rejection	RR	$-8\text{V}\leq V_i\leq -18\text{V}, f=120\text{Hz}$	$0\sim 125^\circ\text{C}$	41	49	dB
Dropout Voltage	$V_d$	$25^\circ\text{C}$		1.7		V

\* Pulse test.

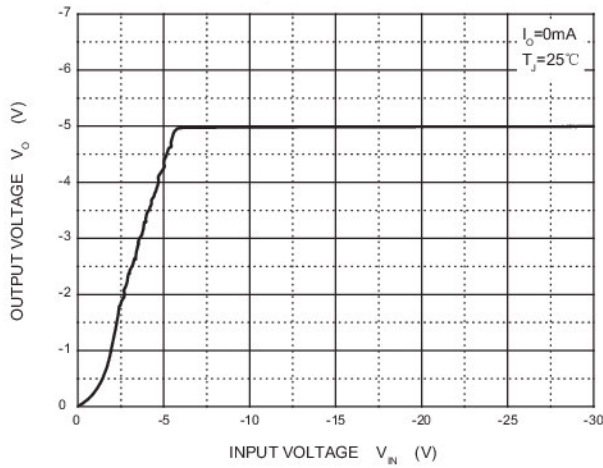
### TYPICAL APPLICATION



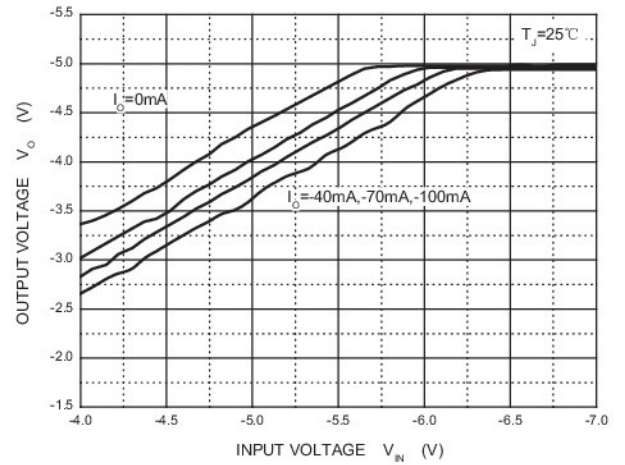
Note : Bypass capacitors are recommended for optimum stability and transient response and should be located as close as Possible to the regulators.

# Typical Characteristics

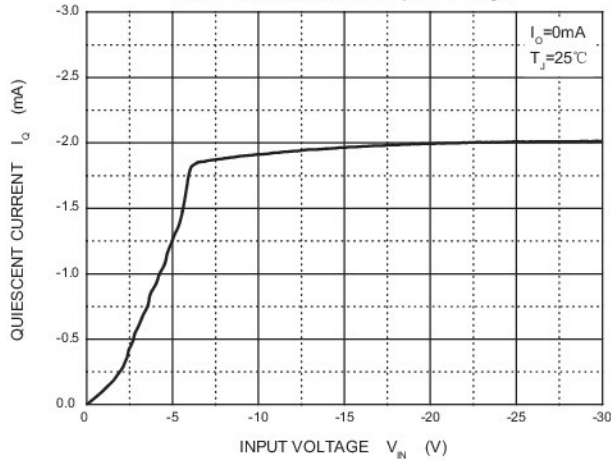
**Output Characteristics**



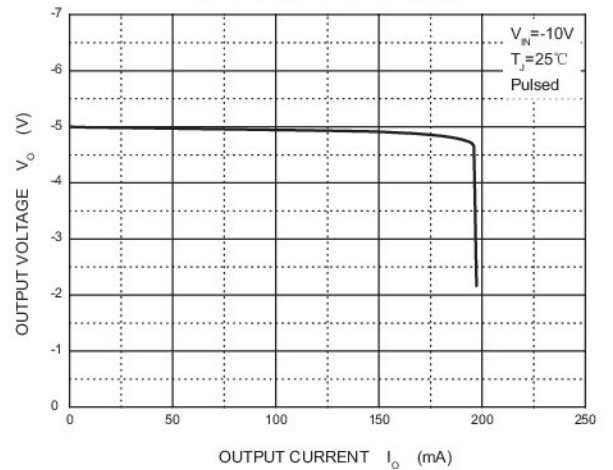
**Dropout Characteristics**



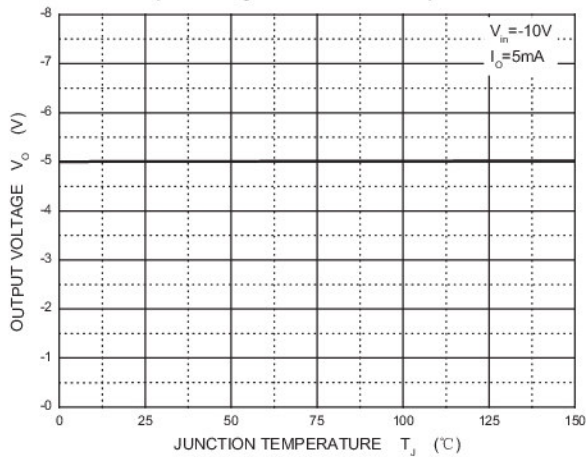
**Quiescent Current vs Input Voltage**



**Current Cut-off Grid Voltage**



**Output Voltage vs Junction Temperature**



**Power Derating Curve**

