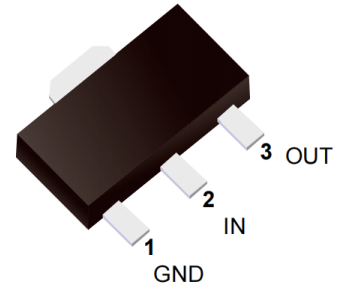




### 79L05 Three-terminal negative voltage regulator

#### FEATURES

- Maximum output current  
 $I_{OM}: 0.1A$
- Output voltage  
 $V_o: -5V$
- Continuous total dissipation  
 $P_D: 0.6W (T_a = 25^\circ C)$



SOT-89-3L

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

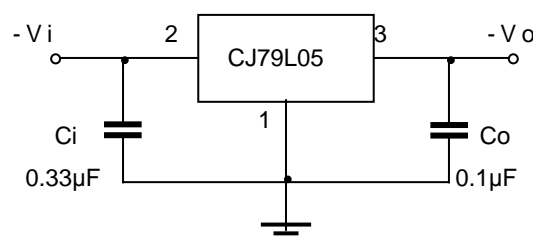
Parameter	Symbol	Value	Unit
Input Voltage	$V_i$	-30	V
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	208.3	$^\circ C/W$
Operating Junction Temperature Range	$T_{OPR}$	-40~+125	$^\circ C$
Storage Temperature Range	$T_{STG}$	-65~+150	$^\circ C$

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

Parameter	Symbol	Test conditions	Mjb	Tnd	Max	Unit
Output Voltage	$V_o$	$T_J = 25^\circ C$	-4.85	-5.0	-5.15	V
		$-7V \leq V_i \leq -20V, I_o = 1mA \sim 40mA$	-4.75	-5.0	-5.25	V
		$I_o = 1mA \sim 70mA$	-4.75	-5.0	-5.25	V
Load Regulation	$\Delta V_o$	$I_o = 1mA \sim 100mA, T_J = 25^\circ C$		20	60	mV
		$I_o = 1mA \sim 40mA, T_J = 25^\circ C$		10	30	mV
Line Regulation	$\Delta V_o$	$-7V \leq V_i \leq -20V, T_J = 25^\circ C$		15	150	mV
		$-8V \leq V_i \leq -20V, T_J = 25^\circ C$		12	100	mV
Quiescent Current	$I_q$	$T_J = 25^\circ C$			6	mA
Quiescent Current Change	$\Delta I_q$	$-8V \leq V_i \leq -20V$			1.5	mA
	$\Delta I_q$	$1mA \leq V_i \leq 40mA$			0.1	mA
Output Noise Voltage	$V_N$	$10Hz \leq f \leq 100KHz, T_J = 25^\circ C$		40		$\mu V/V_o$
Ripple Rejection	RR	$-8V \leq V_i \leq -18V, f = 120Hz, T_J = 25^\circ C$	41	49		dB
Dropout Voltage	$V_d$	$T_J = 25^\circ C$		1.7		V

\* Pulse test.

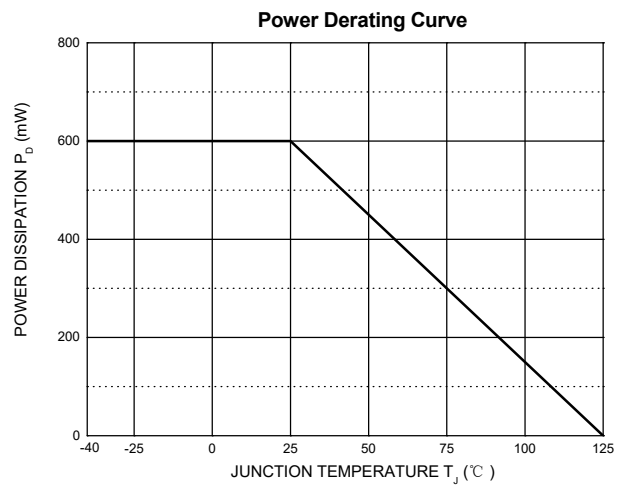
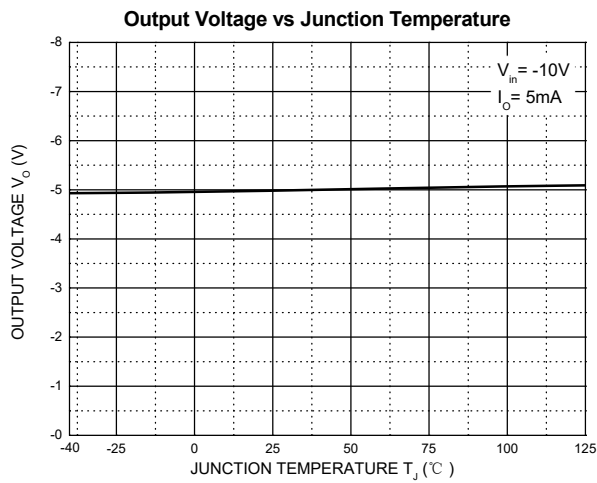
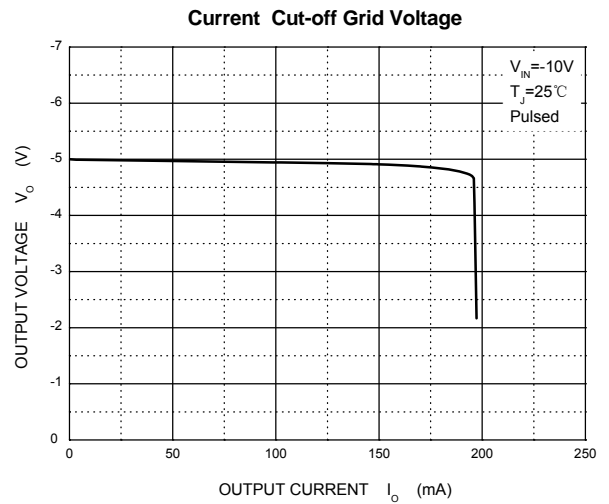
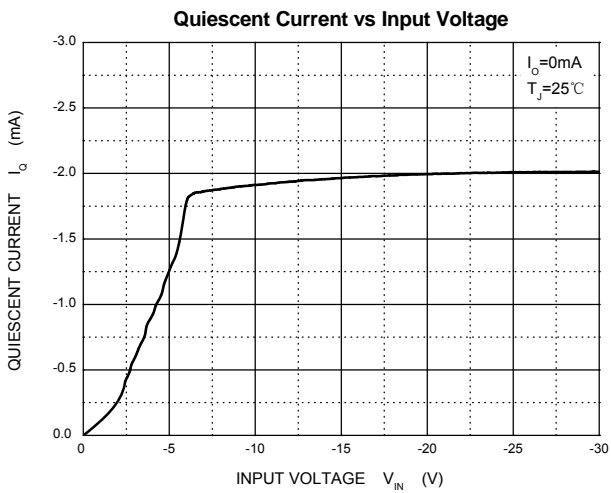
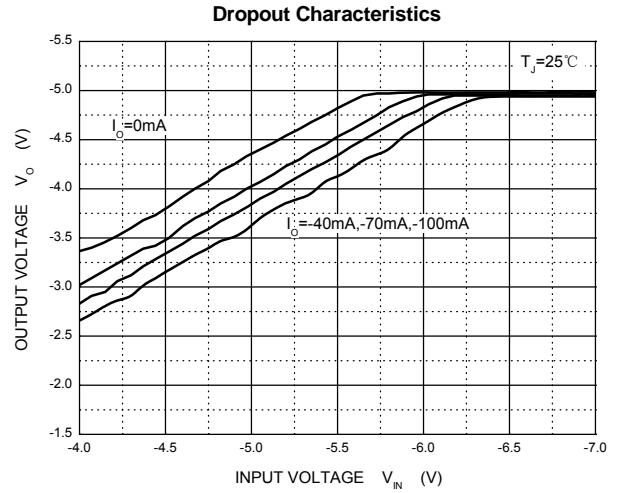
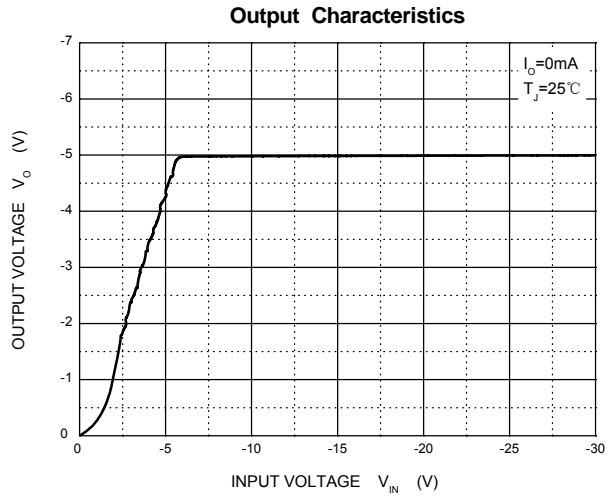
#### TYPICAL APPLICATION



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

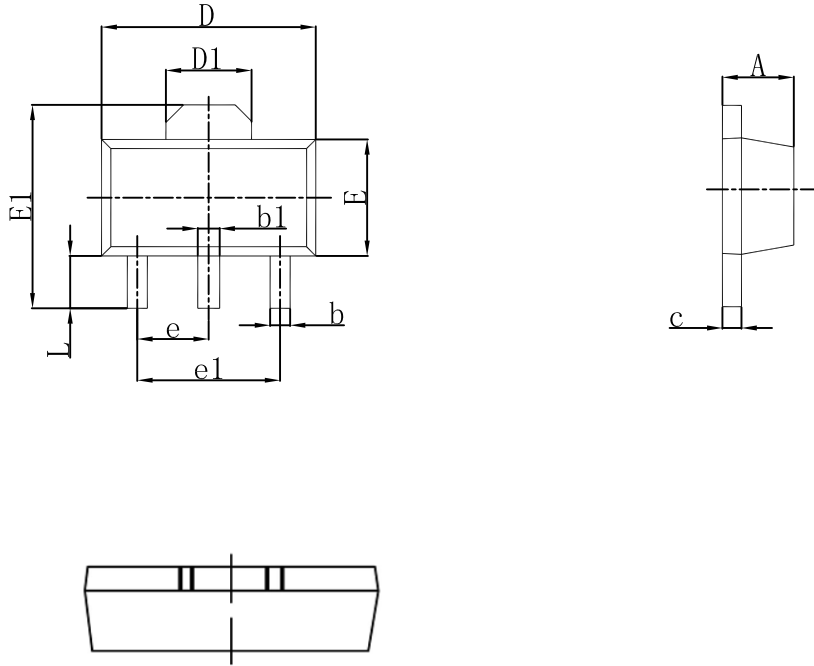


## Typical Characteristics





### SOT-89-3L Outlines Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047