

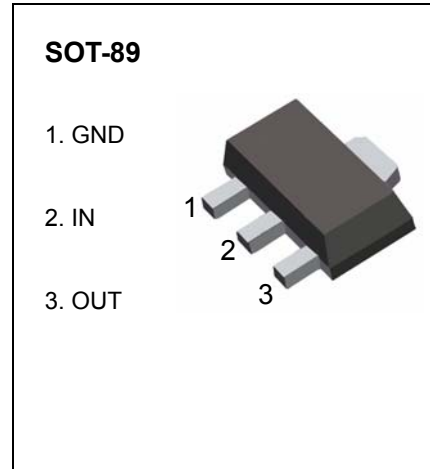


SOT-89 Encapsulate Three Terminal Voltage Regulator

79L05 Three-terminal negative voltage regulator

FEATURES

Maximum Output current
 I_{OM} : 0.1 A
 Output voltage
 V_o : -5 V
 Continuous total dissipation
 P_D : 0.5 W



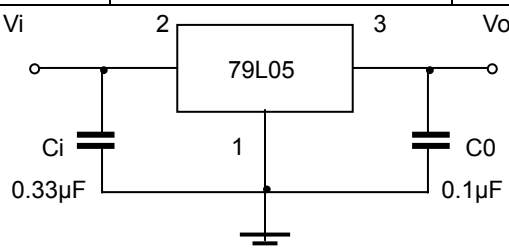
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	V_i	-30	V
Operating Junction Temperature Range	T_{OPR}	0~+125	°C
Storage Temperature Range	T_{STG}	-55~+150	°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	MIN	TYP	MAX	UNIT	
Output voltage	V_o	25°C	-4.8	-5.0	-5.2	V	
		0-125°C	$-7V \leq V_i \leq -20V, I_o=1mA \sim 40mA$	-4.75	-5.0	-5.25	V
			$I_o=1mA \sim 70mA$	-4.75	-5.0	-5.25	V
Load Regulation	ΔV_o	$I_o=1mA \sim 100mA$	25°C	20	60	mV	
		$I_o=1mA \sim 40mA$	25°C	10	30	mV	
Line regulation	ΔV_o	$-7V \leq V_i \leq -20V$	25°C	15	150	mV	
		$-8V \leq V_i \leq -20V$	25°C	12	100	mV	
Quiescent Current	I_q	25°C			6	mA	
Quiescent Current Change	ΔI_q	$-8V \leq V_i \leq -20V$	0-125°C		1.5	mA	
		$1mA \leq V_i \leq 40mA$	0-125°C		0.1	mA	
Output Noise Voltage	V_N	10Hz $\leq f \leq$ 100KHz	25°C	40		uV	
Ripple Rejection	RR	$-8V \leq V_i \leq -18V, f=120Hz$	0-125°C	41	49	dB	
Dropout Voltage	V_d	25°C		1.7		V	

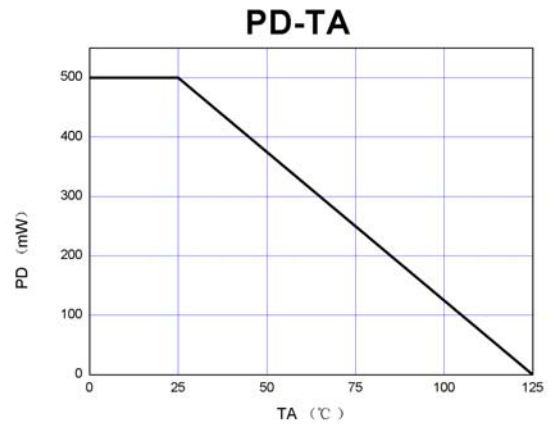
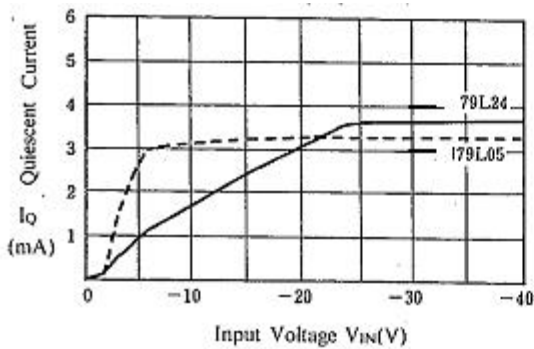
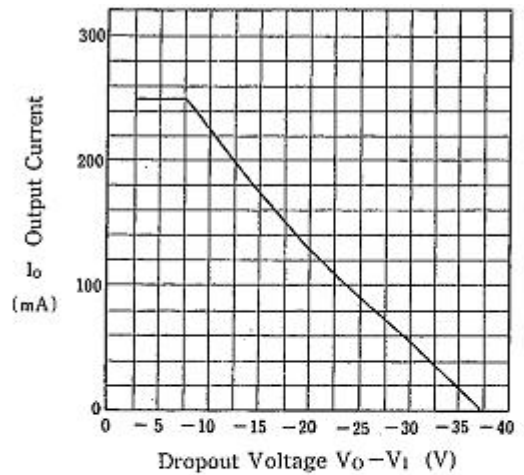
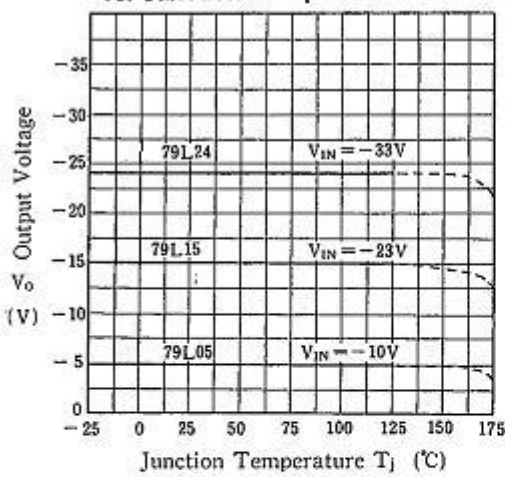
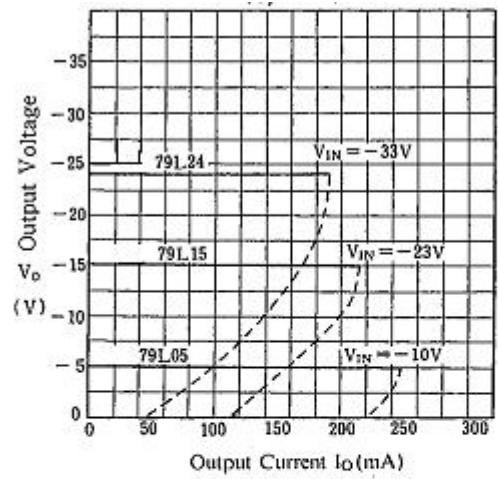
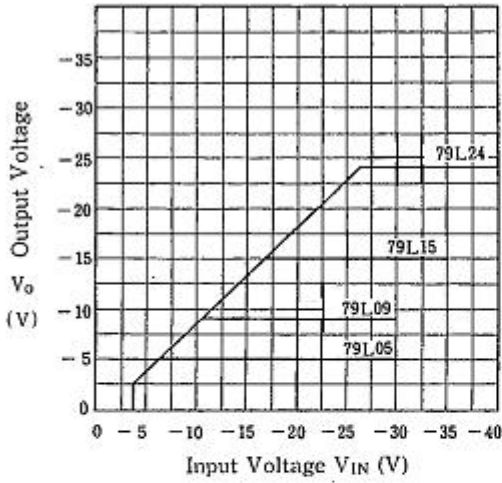
TYPICAL APPLICATION



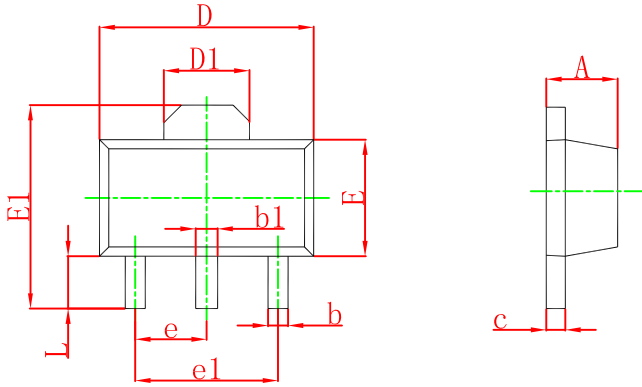
Note : Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

Typical Characteristics

79LXX

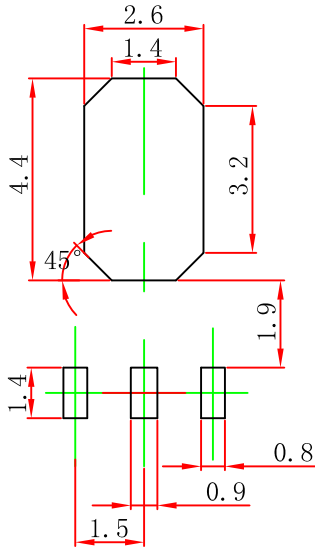


SOT-89-3L Package Outline Dimensions



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

SOT-89-3L Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.