

Encapsulate Three Terminal Voltage Regulators

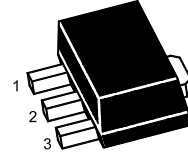
Three-terminal negative voltage regulator

FEATURES

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

SOT-89 Plastic Package

1. GND
2. IN
3. OUT



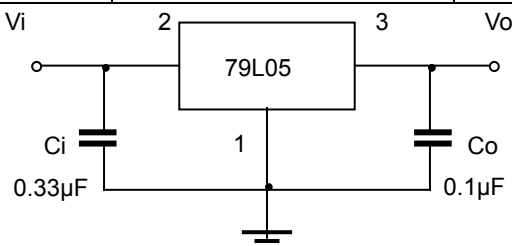
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	V_i	-30	V
Operating Junction Temperature Range	T_{OPR}	0~+150	°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	Mjb	Tmd	Max	Unit	
Output Voltage	V_o	$25^\circ C$	-4.8	-5.0	-5.2	V	
		0-125°C	-7V ≤ V_i ≤ -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	$I_o = 1mA \sim 100mA$	$25^\circ C$	20	60	mV	
		$I_o = 1mA \sim 40mA$	$25^\circ C$	10	30	mV	
Line Regulation	ΔV_o	-7V ≤ V_i ≤ -20V	$25^\circ C$	15	150	mV	
		-8V ≤ V_i ≤ -20V	$25^\circ C$	12	100	mV	
Quiescent Current	I_q	$25^\circ C$			6	mA	
Quiescent Current Change	ΔI_q	-8V ≤ V_i ≤ -20V	0-125°C		1.5	mA	
	ΔI_q	1mA ≤ V_i ≤ 40mA	0-125°C		0.1	mA	
Output Noise Voltage	V_N	10Hz ≤ f ≤ 100KHz	$25^\circ C$	40		μV	
Ripple Rejection	RR	-8V ≤ V_i ≤ -18V, $f = 120Hz$	0-125°C	41	49	dB	
Dropout Voltage	V_d	$25^\circ C$		1.7		V	

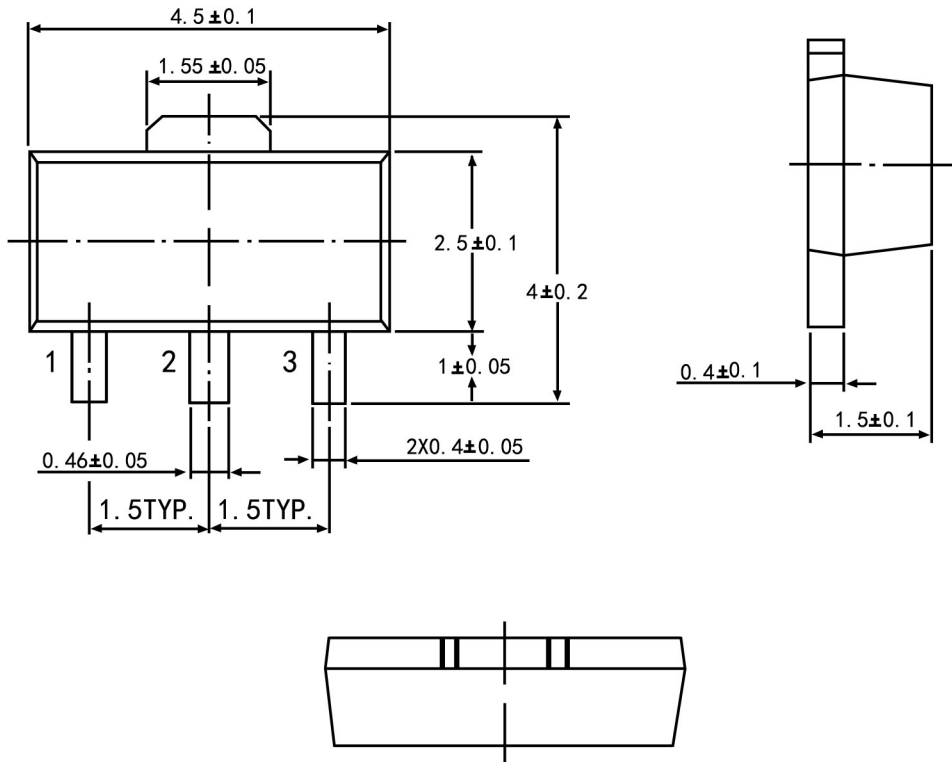
TYPICAL APPLICATION



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



SOT-89 PACKAGE OUTLINE



Symbol	Dimension in Millimeters	
	Min	Max
A	1.40	1.60
B	0.44	0.62
B1	0.35	0.54
C	0.35	0.44
D	4.40	4.60
D1	1.62	1.83
E	2.29	2.60
e	1.50 Typ	
H	3.94	4.25
H1	2.63	2.93
L	0.89	1.20
All Dimensions In mm		