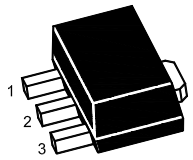
Encapsulate Three-terminal Voltage Regulators

Three-terminal negative voltage regulator

SOT-89 Plastic Package



1. GND
2. IN
3. OUT

FEATURES

- Maximum output current
  $I_{OM:}$ 0.1 A
- Output voltage
  V_O: -8 V
- Continuous total dissipation
  P_D: 0.5 W

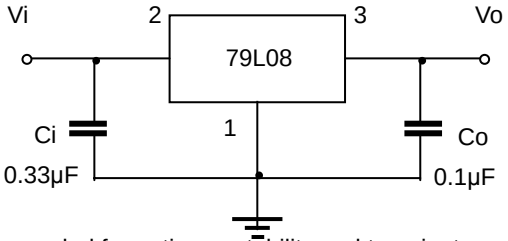
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Unit
Input Voltage	V_I	-30	V
Operating Junction Temperature Range	T_{OPR}	0~+150	℃
Storage Temperature Range	T_{STG}	-55~+150	℃

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JINCTION TEMPERATURE (V_I=-14V, Io=40mA,Ci=0.33μF,Co=0.1μ F,unless otherwise specified)

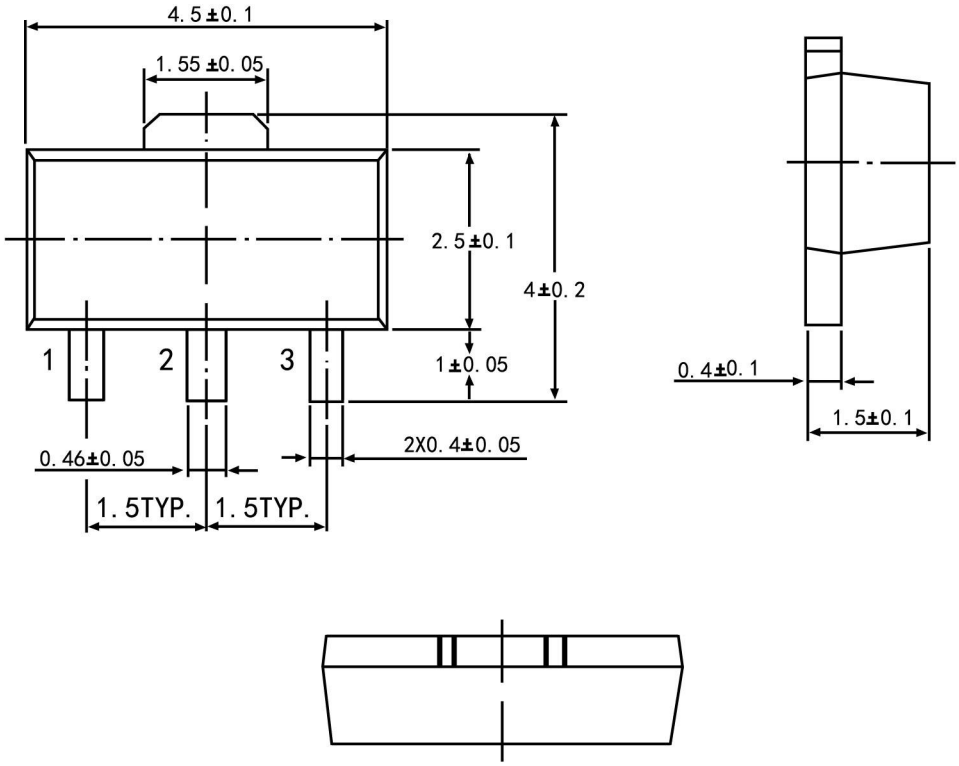
Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Output Voltage	Vo		25℃	-7.7	-8.0	-8.3	V
		-10.5V≤V_I≤-23V, Io=1mA~40mA	0-125℃	-7.6	-8.0	-8.4	V
		Io=1mA~70mA		-7.6	-8.0	-8.4	V
Load Regulation	ΔVo	Io=1mA~100mA	25℃		30	100	mV
		Io=1mA~40mA	25℃		15	50	mV
Line Regulation	ΔVo	-10.5V≤V_I≤-23V	25℃		42	200	mV
		-11V≤V_I≤-23V	25℃		36	150	mV
Quiescent Current	Iq		25℃		4	6	mA
Quiescent Current Change	ΔIq	-11V≤V_I≤-23V	0-125℃			1.5	mA
	ΔIq	1mA≤I_O≤40mA	0-125℃			0.1	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz	25℃		54		uV
Ripple Rejection	RR	-11V≤V_I≤-21V,f=120Hz	0-125℃	37	46		dB
Dropout Voltage	Vd		25℃		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		