

SOT-89 Encapsulate Three terminal voltage regulators

79L09U Three-terminal negative voltage regulator

FEATURES

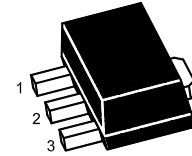
- Maximum output current
 $I_{OM}: 0.1\text{ A}$
- Output voltage
 $V_O: -9\text{ V}$
- Continuous total dissipation
 $P_D: 0.5\text{ W}$

SOT-89 Plastic Package

1. GND

2. IN

3. OUT



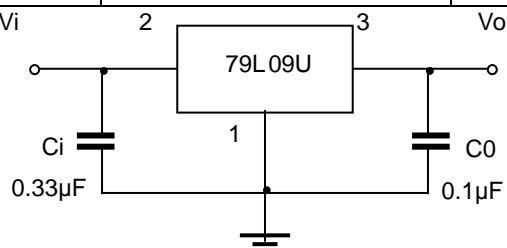
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

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

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ($V_i=-16\text{V}, I_o=40\text{mA}, C_i=0.33\mu\text{F}, C_o=0.1\mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit	
Output Voltage	V_o	25°C	-8.64	-9.0	-9.36	V	
		0-125°C	-12V ≤ V_i ≤ -24V, $I_o=1\text{mA}-40\text{mA}$	-8.55	-9.0	-9.45	V
			$I_o=1\text{mA}-70\text{mA}$	-8.55	-9.0	-9.45	V
Load Regulation	ΔV_o	$I_o=1\text{mA}-100\text{mA}$	25°C	19	90	mV	
		$I_o=1\text{mA}-40\text{mA}$	25°C	11	40	mV	
Line Regulation	ΔV_o	-12 V ≤ V_i ≤ -24V	25°C	45	175	mV	
		-13V ≤ V_i ≤ -24V	25°C	40	125	mV	
Quiescent Current	I_q	25°C		4.1	6.0	mA	
Quiescent Current Change	ΔI_q	-13V ≤ V_i ≤ -24V	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°C	58		uV	
Ripple Rejection	RR	-15V ≤ V_i ≤ -24V, $f=120\text{Hz}$	0-125°C	45		dB	
Dropout Voltage	V_d	25°C		1.7		V	

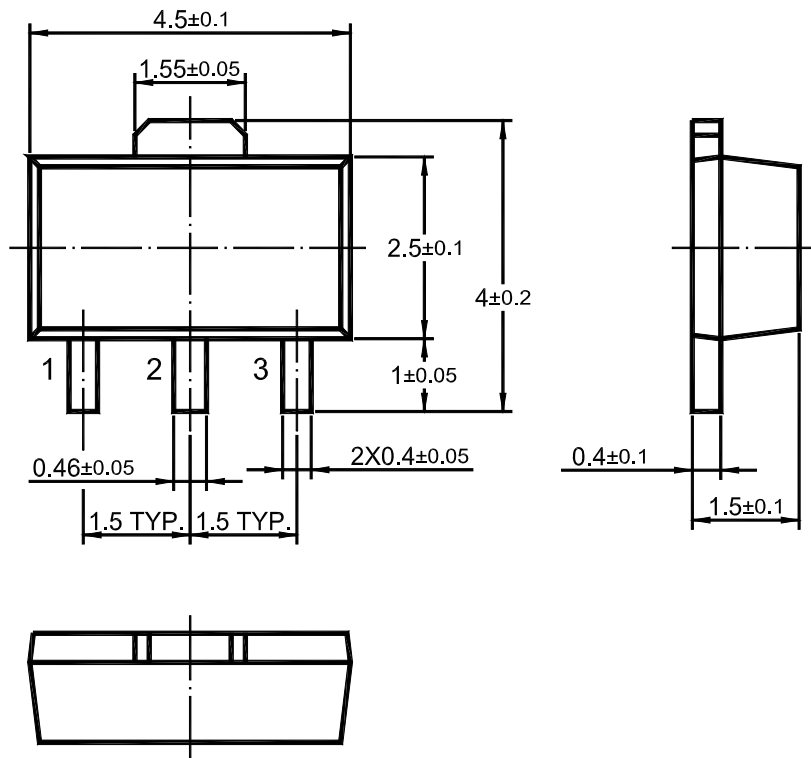
TYPICAL APPLICATION



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

79L09U

SOT-89 PACKAGE OUTLINE



Dimensions in mm