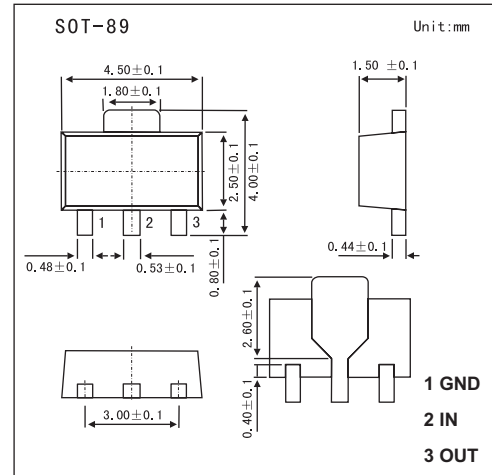


Three-terminal Negative Voltage Regulator

LM79L15

■ Features

- Maximum Output current I_{om} : 0.1 A
- Output voltage V_o : -15V
- Continuous total dissipation P_d : 0.5 W

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Input Voltage	V_I	-35	V
Operating Junction Temperature Range	T_{OPR}	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

■ Electrical Characteristics ($V_I = -23\text{V}$, $I_o = 40\text{mA}$, $0^\circ\text{C} < T_j < 125^\circ\text{C}$, $C_1 = 0.33\ \mu\text{F}$, $C_o = 0.1\ \mu\text{F}$, unless otherwise specified)

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Output voltage	V_o	$T_j = 25^\circ\text{C}$	-14.4	-15	-15.6	V
		$-17.5\text{V} \leq V_I \leq -30\text{V}$, $I_o = 1\text{mA} - 40\text{mA}$	-14.25	-15	-15.75	V
		$I_o = 1\text{mA} - 70\text{mA}$	-14.25	-15	-15.75	V
Load Regulation	ΔV_o	$T_j = 25^\circ\text{C}$, $I_o = 1\text{mA}$ to 100mA , $V_I = -23\text{V}$		25	150	mV
		$T_j = 25^\circ\text{C}$, $I_o = 1\text{mA}$ to 40mA , $V_I = -23\text{V}$		15	75	mV
Line regulation	ΔV_o	$-17.5\text{V} \leq V_I \leq -30\text{V}$, $T_j = 25^\circ\text{C}$, $I_o = 40\text{mA}$		65	300	mV
		$-20\text{V} \leq V_I \leq -30\text{V}$, $T_j = 25^\circ\text{C}$, $I_o = 40\text{mA}$		50	250	mV
Quiescent Current	I_q	25°C			6.5	mA
Quiescent Current Change	ΔI_q	$0^\circ\text{C} < T_j < 125^\circ\text{C}$, $-20\text{V} \leq V_I \leq -30\text{V}$, $I_o = 40\text{mA}$			1.5	mA
	ΔI_q	$0^\circ\text{C} < T_j < 125^\circ\text{C}$, $1\text{mA} \leq I_o \leq 40\text{mA}$			0.1	mA
Output Noise Voltage	V_N	$10\text{Hz} \leq f \leq 100\text{kHz}$, $T_j = 25^\circ\text{C}$		90		μV
Ripple Rejection	RR	$-18.5\text{V} \leq V_I \leq -28.5\text{V}$, $f = 120\text{Hz}$	34	39		dB
Dropout Voltage	V_d	$T_j = 25^\circ\text{C}$		1.7		V

■ Typical Application

