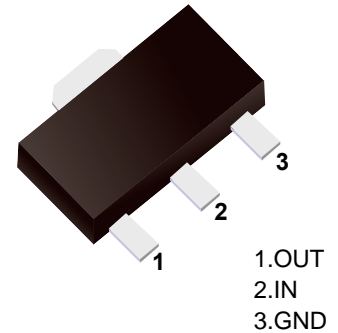


■ Three-Terminal Negative Voltage Regulator



■ Features

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

■ Simplified outline(SOT-89)

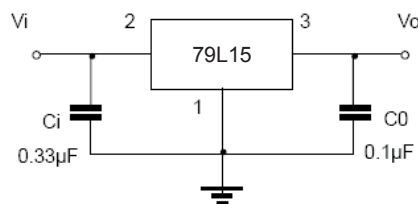
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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)

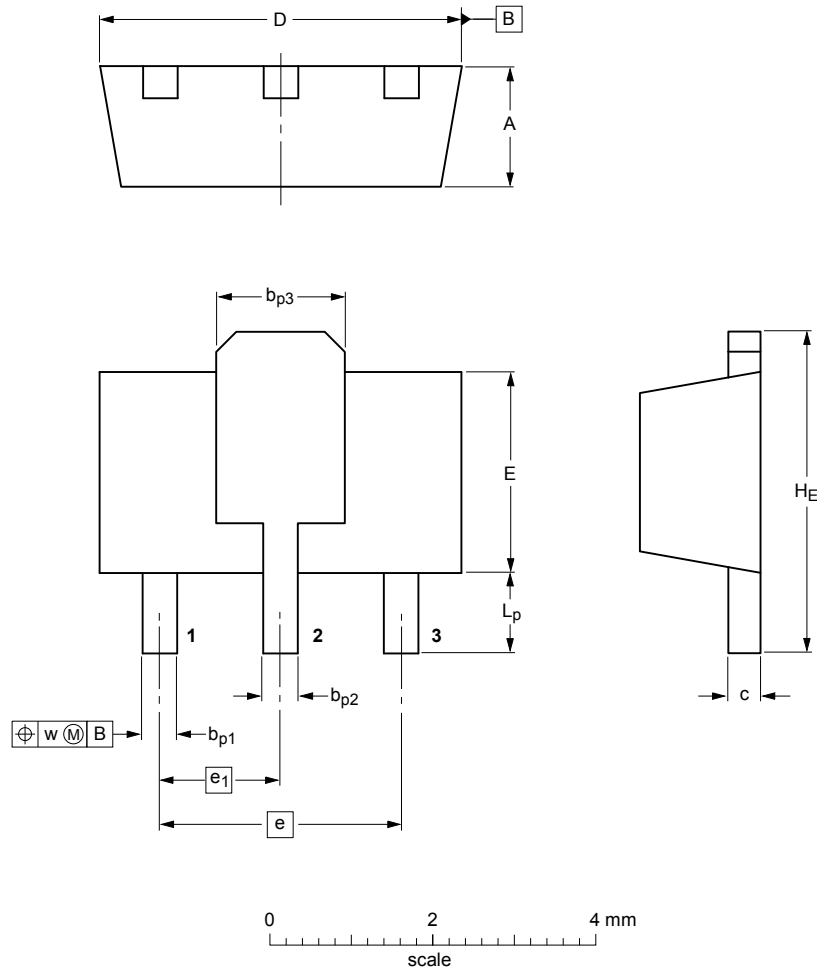
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	V_o	$T_j=25^\circ\text{C}$	-14.4	-15	-15.6	V
		$-17.5\text{V}\leq V_i\leq -30\text{V}, I_o=1\text{mA}-40\text{mA}$	-14.25	-15	-15.75	V
		$I_o=1\text{mA}-70\text{mA}$	-14.25	-15	-15.75	V
Load Regulation	ΔV_o	$T_j=25^\circ\text{C}, I_o=1\text{mA to }100\text{mA}, V_i=-23\text{V}$		25	150	mV
		$T_j=25^\circ\text{C}, I_o=1\text{mA to }40\text{mA}, V_i=-23\text{V}$		15	75	mV
Line regulation	ΔV_o	$-17.5\text{V}\leq V_i\leq -30\text{V}, T_j=25^\circ\text{C}$		65	300	mV
		$-20\text{V}\leq V_i\leq -30\text{V}, T_j=25^\circ\text{C}$		50	250	mV
Quiescent Current	I_q	25°C			6.5	mA
Quiescent Current Change	ΔI_q	$0^\circ\text{C}<T_j<125^\circ\text{C}, -20\text{V}\leq V_i\leq -30\text{V}$			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



Package Outline

SOT-89



DIMENSIONS (mm are the original dimensions)

UNIT	A	b _{p1}	b _{p2}	b _{p3}	c	D	E	e	e ₁	H _E	L _p	w
mm	1.6 1.4	0.48 0.35	0.53 0.40	1.8 1.4	0.44 0.23	4.6 4.4	2.6 2.4	3.0	1.5	4.25 3.75	1.2 0.8	0.13

Summary of Packing Options

Package	Package Description	Packing Quantity	Industry Standard
SOT-89	Tape/Reel, 7" reel	1000	EIA-481-1