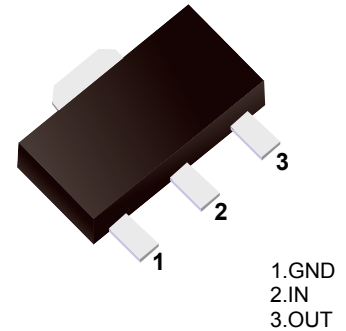


■ Three-Terminal Negative Voltage Regulator



■ Features

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

■ Simplified outline(SOT-89)

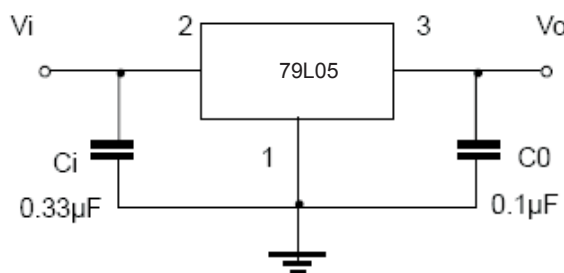
■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Input Voltage	$V_i$	-30	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 ( $V_i = -10\text{V}, I_o = 40\text{mA}, 0^\circ\text{C} < T_j < 125^\circ\text{C}, C_i = 0.33 \mu\text{F}, C_o = 0.1 \mu\text{F}$ , unless otherwise specified)

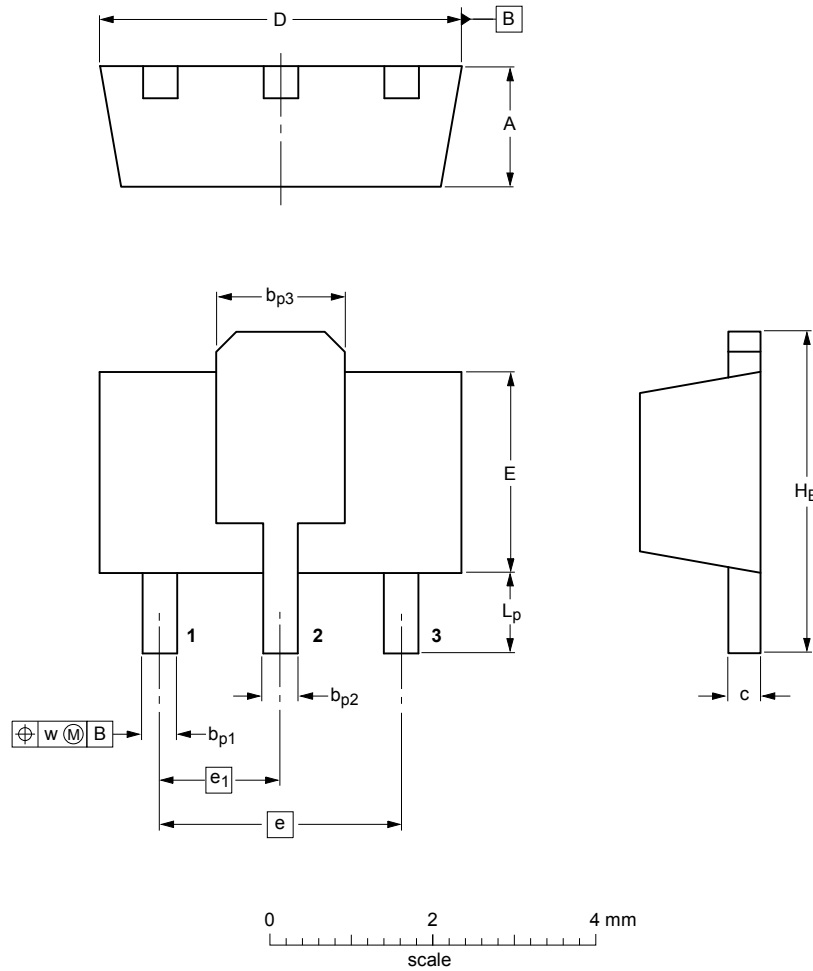
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Output voltage	$V_o$	$T_j = 25^\circ\text{C}$	-4.8	-5.0	-5.2	V
		$-7\text{V} \leq V_i \leq -20\text{V}, I_o = 1\text{mA} - 40\text{mA}$	-4.75	-5.0	-5.25	V
		$I_o = 1\text{mA} - 70\text{mA}$	-4.75	-5.0	-5.25	V
Load regulation	$\Delta V_o$	$T_j = 25^\circ\text{C}, I_o = 1\text{mA} - 100\text{mA}$		11	60	mV
		$T_j = 25^\circ\text{C}, I_o = 1\text{mA} - 40\text{mA}$		5.0	30	mV
Line regulation	$\Delta V_o$	$-7\text{V} \leq V_i \leq -20\text{V}, T_j = 25^\circ\text{C}$		32	150	mV
		$-8\text{V} \leq V_i \leq -20\text{V}, T_j = 25^\circ\text{C}$		26	100	mV
Quiescent current	$I_q$	$T_j = 25^\circ\text{C}$		3.8	6	mA
Quiescent current change	$\Delta I_q$	$0^\circ\text{C} < T_j < 125^\circ\text{C}, -8\text{V} \leq V_i \leq -20\text{V}$			1.5	mA
	$\Delta I_q$	$0^\circ\text{C} < T_j < 125^\circ\text{C}, 1\text{mA} \leq I_o \leq 40\text{mA}$			0.1	mA
Output noise voltage	$V_n$	$10\text{Hz} \leq f \leq 100\text{KHz}, T_j = 25^\circ\text{C}$		42		$\mu\text{V}$
Ripple rejection	RR	$-8\text{V} \leq V_i \leq -18\text{V}, f = 120\text{Hz}$	41	49		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 <sub>p1</sub>	b <sub>p2</sub>	b <sub>p3</sub>	c	D	E	e	e <sub>1</sub>	H <sub>E</sub>	L <sub>p</sub>	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