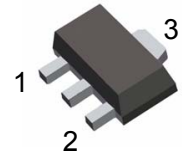


Three-terminal negative voltage regulator

Maximum output current  $I_o$ : 0.1 A  
 Output voltage  $V_o$ : -5 V  
 Continuous total dissipation  
 $P_D$  SOT-89 0.5 W ( $T_a = 25^\circ\text{C}$ )

SOT-89



1. GND 2. OUT 3. IN

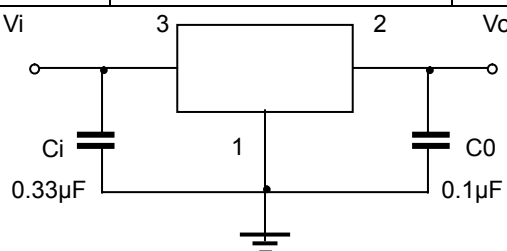
**ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)**

Parameter	Symbol	Value	Units
Input Voltage	$V_i$	-30	V
Operating Junction Temperature Range	$T_{OPR}$	0~+125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55~+150	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JUNCTION TEMPERATURE ( $V_i = -10\text{V}, I_o = 40\text{mA}, C_i = 0.33\mu\text{F}, C_o = 0.1\mu\text{F}$ , unless otherwise specified)**

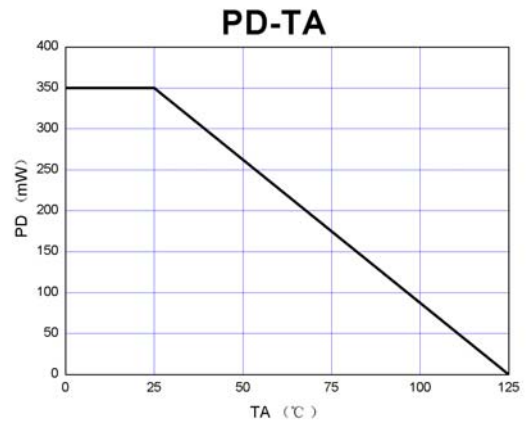
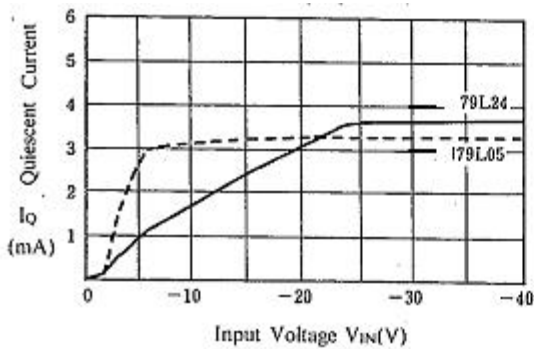
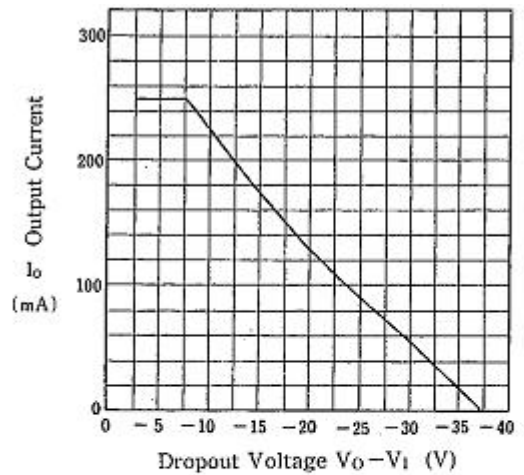
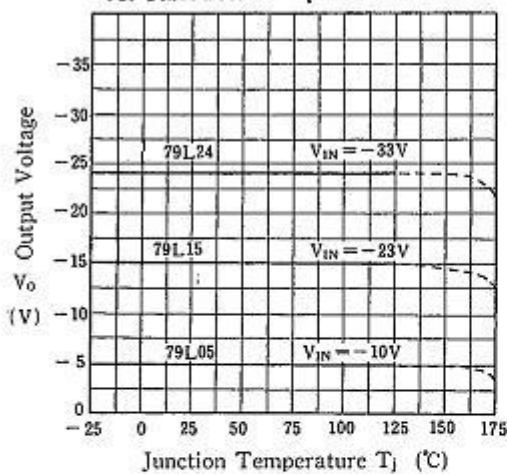
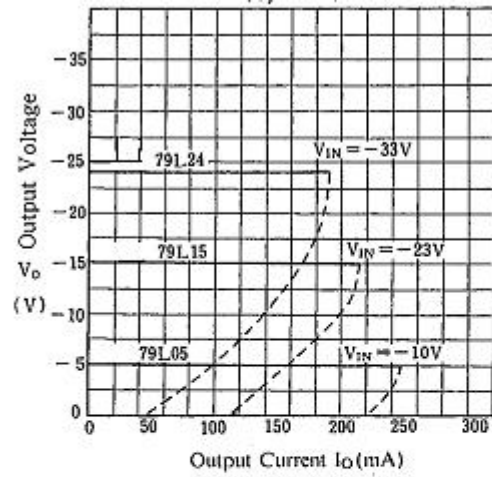
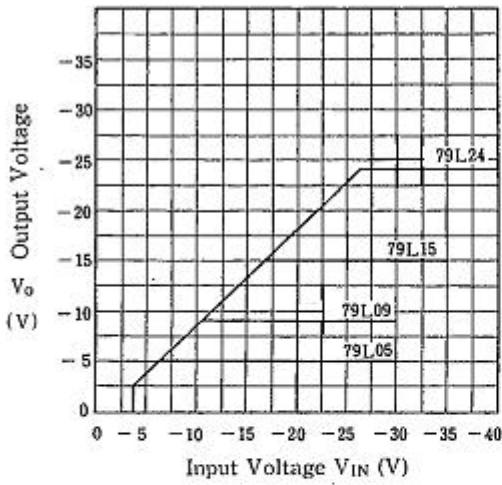
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Output voltage	$V_o$	$25^\circ\text{C}$	-4.8	-5.0	-5.2	V
		$-7\text{V} \leq V_i \leq -20\text{V}, I_o = 1\text{mA} \sim 40\text{mA}$	-4.75	-5.0	-5.25	V
		$0-125^\circ\text{C}$ $I_o = 1\text{mA} \sim 70\text{mA}$	-4.75	-5.0	-5.25	V
Load Regulation	$\Delta V_o$	$I_o = 1\text{mA} \sim 100\text{mA}$ $25^\circ\text{C}$		20	60	mV
		$I_o = 1\text{mA} \sim 40\text{mA}$ $25^\circ\text{C}$		10	30	mV
Line regulation	$\Delta V_o$	$-7\text{V} \leq V_i \leq -20\text{V}$ $25^\circ\text{C}$		15	150	mV
		$-8\text{V} \leq V_i \leq -20\text{V}$ $25^\circ\text{C}$		12	100	mV
Quiescent Current	$I_q$	$25^\circ\text{C}$			6	mA
Quiescent Current Change	$\Delta I_q$	$-8\text{V} \leq V_i \leq -20\text{V}$ $0-125^\circ\text{C}$			1.5	mA
		$1\text{mA} \leq I_o \leq 40\text{mA}$ $0-125^\circ\text{C}$			0.1	mA
Output Noise Voltage	$V_N$	$10\text{Hz} \leq f \leq 100\text{KHz}$ $25^\circ\text{C}$		40		$\mu\text{V}$
Ripple Rejection	RR	$-8\text{V} \leq V_i \leq -18\text{V}, f = 120\text{Hz}$ $0-125^\circ\text{C}$	41	49		dB
Dropout Voltage	$V_d$	$25^\circ\text{C}$		1.7		V

**TYPICAL APPLICATION**

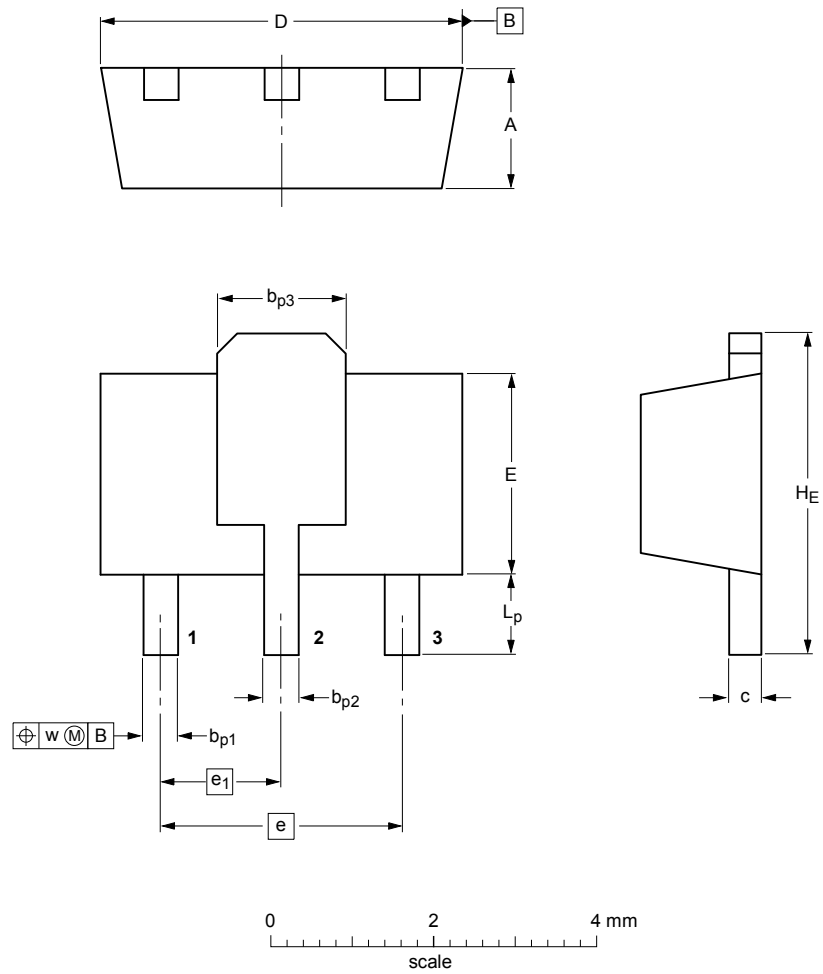


Note : Bypass capacitors are recommended for optimum stability and transient response and should be located as close as possible to the regulators.

**Typical Characteristics**



■ 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	0.48	0.53	1.8	0.44	4.6	2.6	3.0	1.5	4.25	1.2	0.13
	1.4	0.35	0.40	1.4	0.23	4.4	2.4					

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