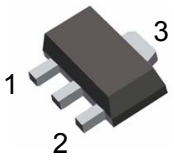
79L05

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 ℃)

SOT-89



1. GND 2. OUT 3. IN

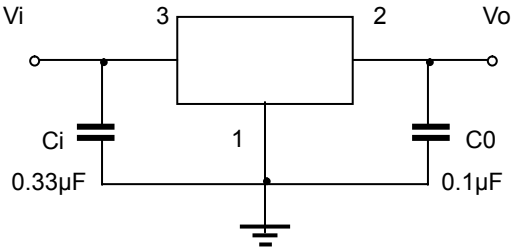
ABSOLUTE MAXIMUM RATINGS (Operating temperature range applies unless otherwise specified)

Parameter	Symbol	Value	Units
Input Voltage	V_i	-30	V
Operating Junction Temperature Range	T_{OPR}	0~+125	℃
Storage Temperature Range	T_{STG}	-55~+150	℃

ELECTRICAL CHARACTERISTICS AT SPECIFIED VIRTUAL JINCTION TEMPERATURE(V_I=-10V,Io=40mA,Ci=0.33μF,Co=0.1μF, unless otherwise specified)

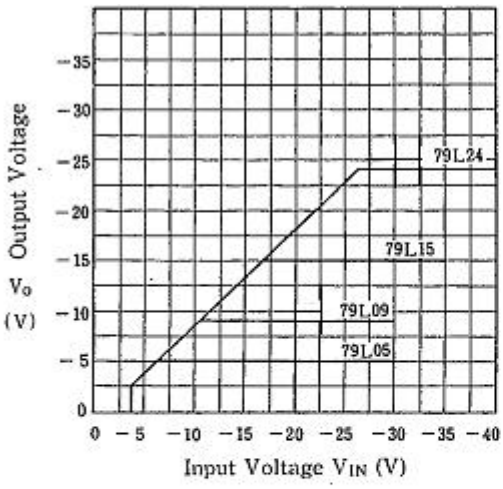
Parameter	Symbol	Test conditions		MIN	TYP	MAX	UNIT
Output voltage	Vo		25℃	-4.8	-5.0	-5.2	V
		-7V≤V_I≤-20V, Io=1mA~40mA	0-125℃	-4.75	-5.0	-5.25	V
		Io=1mA~70mA		-4.75	-5.0	-5.25	V
Load Regulation	ΔVo	Io=1mA~100mA	25℃		20	60	mV
		Io=1mA~40mA	25℃		10	30	mV
Line regulation	ΔVo	-7V≤V_I≤-20V	25℃		15	150	mV
		-8V≤V_I≤-20V	25℃		12	100	mV
Quiescent Current	Iq		25℃			6	mA
Quiescent Current Change	ΔIq	-8V≤V_I≤-20V	0-125℃			1.5	mA
	ΔIq	1mA≤V_I≤40mA	0-125℃			0.1	mA
Output Noise Voltage	V_N	10Hz≤f≤100KHz	25℃		40		uV
Ripple Rejection	RR	-8V≤V_I≤-18V,f=120Hz	0-125℃	41	49		dB
Dropout Voltage	Vd		25℃		1.7		V

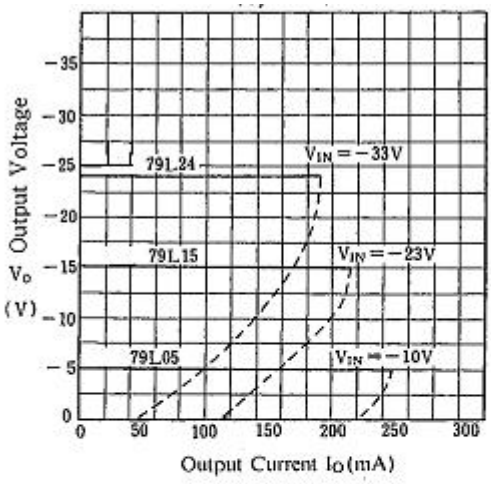
TYPICAL APPLICATION

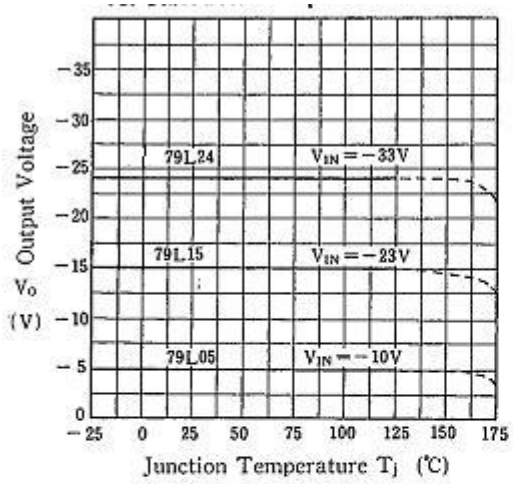


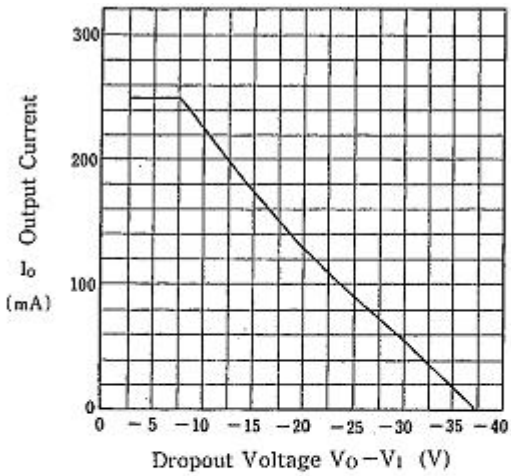
Note : Bypass capacitors are recommended for optimum stability and transient response and should be located as close as Possible to the regulators.

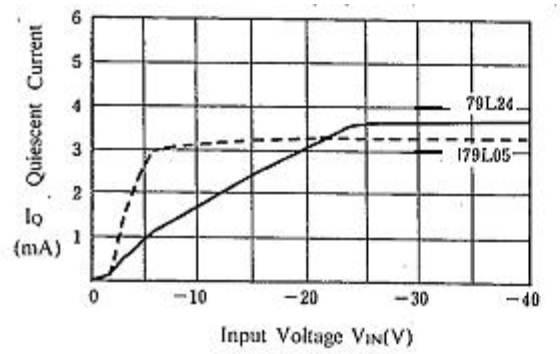
TypicalCharacteristics

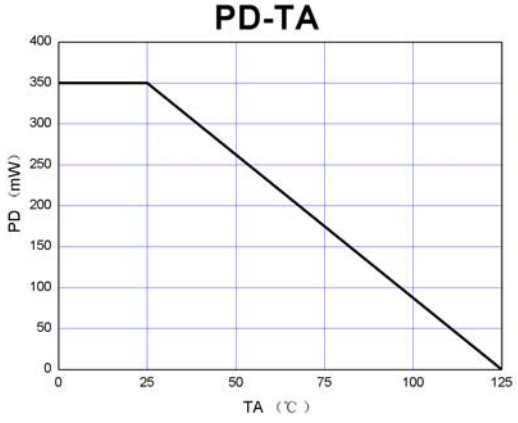












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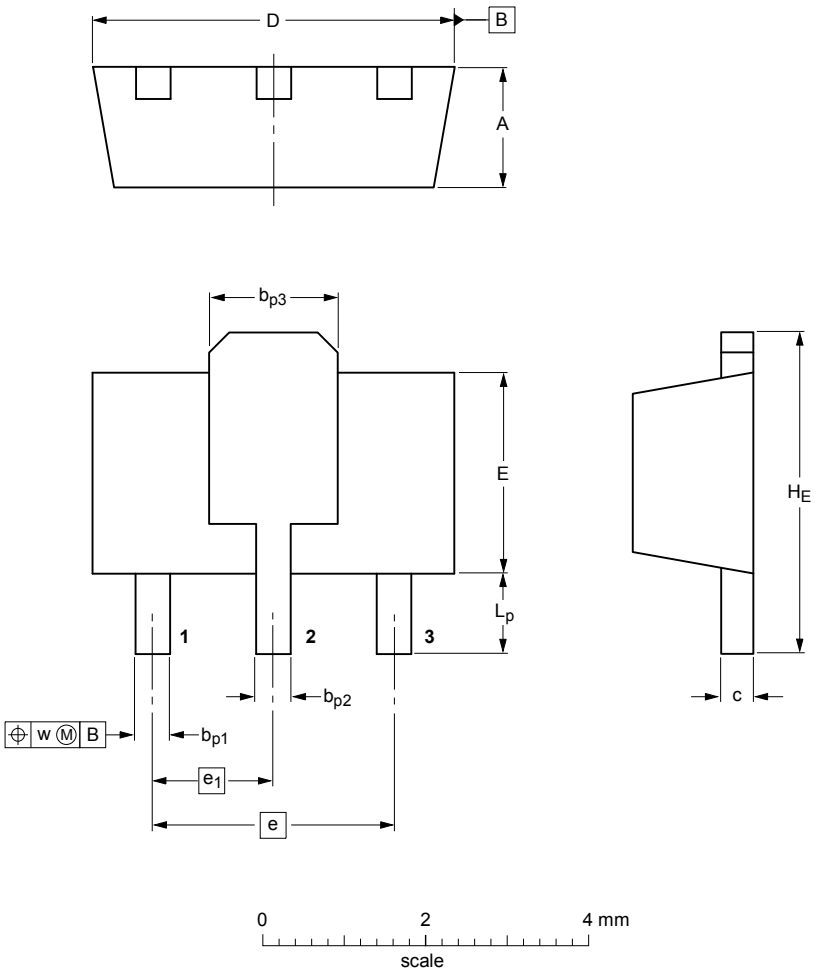

DIMENSIONS (mm are the original dimensions)

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