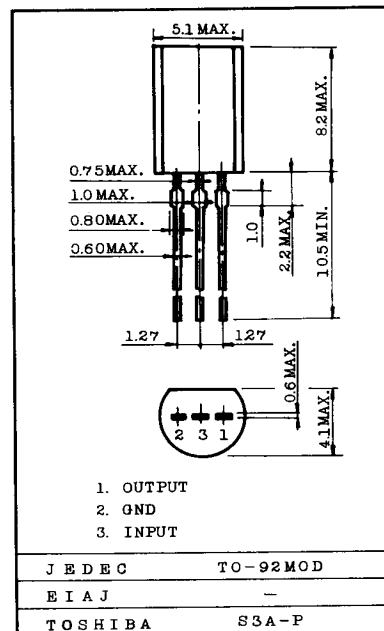


3-TERMINAL NEGATIVE VOLTAGE REGULATORS

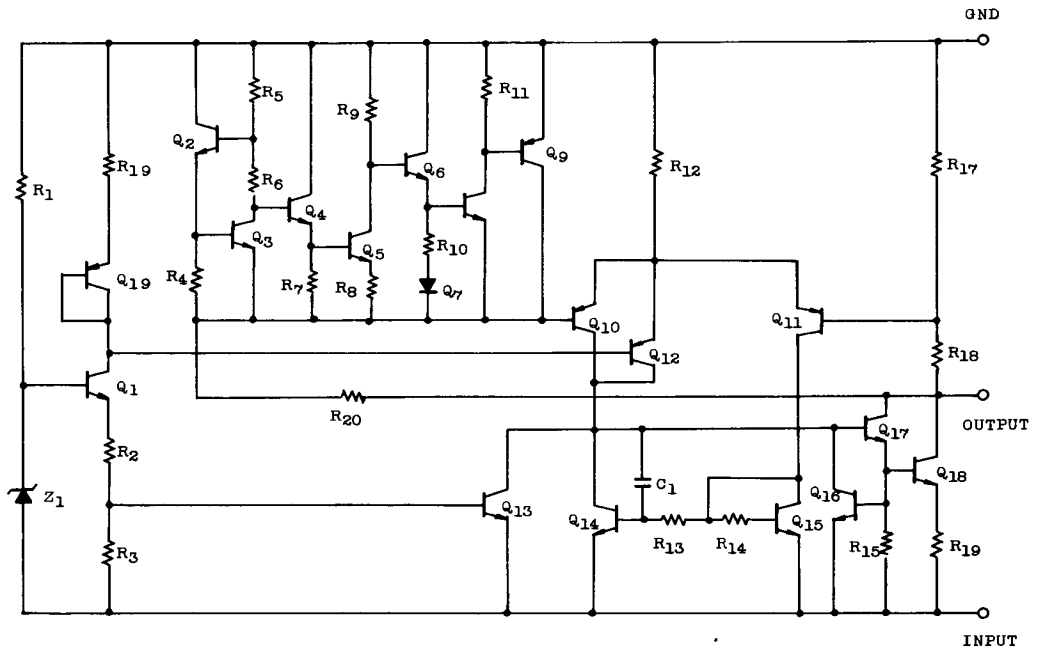
- Unit in mm



CHARACTERISTIC		SYMBOL	RATING	UNIT
Input Voltage	TA79L005P	V _{IN}	-35	V
	TA79L006P			
	TA79L008P			
	TA79L009P			
	TA79L010P			
	TA79L012P			
	TA79L015P			
Power Dissipation (T _c =25°C)		P _D	800	mW
Operating Temperature		T _{opr}	-30 ~ 75	°C
Storage Temperature		T _{stg}	-55 ~ 150	°C

TA79L005P ~ TA79L015P

EQUIVALENT CIRCUIT



ELECTRICAL CHARACTERISTICS
 $(V_{IN} = -10V, I_{OUT} = 40mA, C_{IN} = 0.33\mu F, C_{OUT} = 0.1\mu F, 0^{\circ}C \leq T_j \leq 125^{\circ}C)$

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN	TYP	MAX	UNIT
Output Voltage	V_{OUT}	1	$T_j = 25^{\circ}C$	-5.2	-5.0	-4.8	v
Input Regulation	Reg Line	1	$T_j = 25^{\circ}C$	-7.0V $\geq V_{IN} \geq$ -20V	-	5.5	150
				-8.0V $\geq V_{IN} \geq$ -20V	-	4.5	100
Load Regulation	Reg Load	1	$T_j = 25^{\circ}C$	1.0mA $\geq I_{OUT} \geq$ 100mA	-	11	60
				1.0mA $\geq I_{OUT} \geq$ 40mA	-	5.0	30
Output Voltage	V_{OUT}	1	-7.0 $\geq V_{IN} \geq$ -20V 1.0mA $\geq I_{OUT} \geq$ 40mA	-5.25	-	-4.75	v
			$V_{IN} = -10V$ 1.0mA $\geq I_{OUT} \geq$ 70mA	-5.25	-	-4.75	
Quiescent Current	I_B	1	$T_j = 25^{\circ}C$	-	3.1	6.0	mA
			$T_j = 125^{\circ}C$	-	-	5.5	
Quiescent Current Change	ΔI_{BO}	1	-8.0V $\geq V_{IN} \geq$ -20V	-	-	1.5	mA
	ΔI_{BI}	1	1.0mA $\geq I_{OUT} \geq$ 40mA	-	-	0.1	
Output Noise Voltage	V_{NO}	1	$T_a = 25^{\circ}C$ 10Hz $\leq f \leq$ 100kHz	-	40	-	μV
Long Term Stability	$\Delta V_{OUT} / \Delta t$	1		-	12	-	mV/ 1.0kHrs
Ripple Rejection Ratio	RR	1	-8.0V $\geq V_{IN} \geq$ -18V $T_j = 25^{\circ}C, f = 120kHz$	41	49	-	dB
Dropout Voltage	$ V_{IN} - V_{OUT} $	1	$T_j = 25^{\circ}C, I_{OUT} = 40mA$	-	1.7	-	v
Average Temperature Coefficient of Output Voltage	T_{CVO}	1	$I_{OUT} = 5mA$	-	-0.6	-	mV/ $^{\circ}C$

TA79L005P ~ TA79L015P

ELECTRICAL CHARACTERISTICS

($V_{IN} = -15V$, $I_{OUT} = 40mA$, $C_{IN} = 0.33\mu F$, $C_{OUT} = 0.1\mu F$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION		MIN	TYP	MAX	UNIT
Output Voltage	V _{OUT}	1	T _j = 25°C		-9.36	-9.0	-8.64	v
Input Regulation	Reg Line	1	T _j = 25°C	-11.4V ≥ V _{IN} ≥ -24V	-	80	200	mV
				-12V ≥ V _{IN} ≥ -24V	-	20	160	
Load Regulation	Reg Load	1	T _j = 25°C	1.0mA ≥ I _{OUT} ≥ 100mA	-	17	90	mV
				1.0mA ≥ I _{OUT} ≥ 40mA	-	8.0	45	
Output Voltage	V _{OUT}	1	-11.4V ≥ V _{IN} ≥ -24V 1.0mA ≥ I _{OUT} ≥ 40mA		-9.45	-	-8.55	v
			V _{IN} = -15V 1.0mA ≥ I _{OUT} ≥ 70mA		-9.45	-	-8.55	
Quiescent Current	I _B	1	T _j = 25°C		-	3.2	6.5	mA
			T _j = 125°C		-	-	6.0	
Quiescent Current Change	ΔI _{BO}	1	-12V ≥ V _{IN} ≥ -24V		-	-	1.5	mA
	ΔI _{BI}	1	1.0mA ≥ I _{OUT} ≥ 40mA		-	-	0.1	
Output Noise Voltage	V _{NO}	1	T _a = 25°C 10Hz ≤ f ≤ 100kHz		-	65	-	μV
Long Term Stability	ΔV _{OUT} /Δt	1			-	21	-	mV/ 1.0kHrs
Ripple Rejection Ratio	RR	1	-12V ≥ V _{IN} ≥ -24V T _j = 25°C, f = 120kHz		36	44	-	dB
Dropout Voltage	V _{IN} -V _{OUT}	1	T _j = 25°C, I _{OUT} = 40mA		-	1.7	-	v
Average Temperature Coefficient of Output Voltage	T _{CV0}	1	I _{OUT} = 5mA		-	-0.85	-	mV/°C

ELECTRICAL CHARACTERISTICS
 $(V_{IN} = -19V, I_{OUT} = 40mA, C_{IN} = 0.33\mu F, C_{OUT} = 0.1\mu F, 0^{\circ}C \leq T_j \leq 125^{\circ}C)$

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN	TYP	MAX	UNIT
Output Voltage	V_{OUT}	1	$T_j = 25^{\circ}C$	-12.5	-12.0	-11.5	v
Input Regulation	Reg Line	1	$T_j = 25^{\circ}C$ $-14.5V \geq V_{IN} \geq -27V$	-	120	250	mV
			$-16V \geq V_{IN} \geq -27V$	-	100	200	
Load Regulation	Reg Load	1	$T_j = 25^{\circ}C$ $1.0mA \geq I_{OUT} \geq 100mA$	-	20	100	mV
			$1.0mA \geq I_{OUT} \geq 40mA$	-	10	50	
Output Voltage	V_{OUT}	1	$-14.5V \geq V_{IN} \geq -27V$ $1.0mA \geq I_{OUT} \geq 40mA$	-12.6	-	-11.4	v
			$V_{IN} = -19V$ $1.0mA \geq I_{OUT} \geq 70mA$	-12.6	-	-11.4	
Quiescent Current	I_B	1	$T_j = 25^{\circ}C$	-	3.2	6.5	mA
			$T_j = 125^{\circ}C$	-	-	6.0	
Quiescent Current Change	ΔI_{BO}	1	$-16V \geq V_{IN} \geq -27V$	-	-	1.5	mA
	ΔI_{BI}	1	$1.0mA \geq I_{OUT} \geq 40mA$	-	-	0.1	
Output Noise Voltage	V_{NO}	1	$T_a = 25^{\circ}C$ $10Hz \leq f \leq 100kHz$	-	80	-	μV
Long Term Stability	$\Delta V_{OUT} / \Delta t$	1		-	24	-	mV/ 1.0kHrs
Ripple Rejection Ratio	RR	1	$-15V \geq V_{IN} \geq -25V$ $T_j = 25^{\circ}C, f = 120kHz$	37	42	-	dB
Dropout Voltage	$ V_{IN} - V_{OUT} $	1	$T_j = 25^{\circ}C, I_{OUT} = 40mA$	-	1.7	-	v
Average Temperature Coefficient of Output Voltage	T_{CVO}	1	$I_{OUT} = 5mA$	-	-1.0	-	mV/ $^{\circ}C$

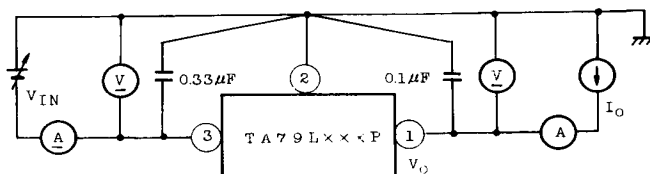
TA79L005P ~ TA79L015P

ELECTRICAL CHARACTERISTICS

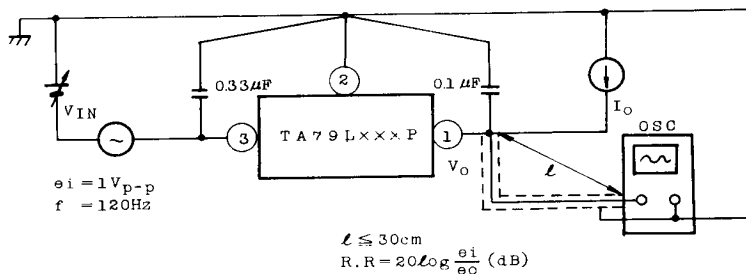
($V_{IN} = -23V$, $I_{OUT} = 40mA$, $C_{IN} = 0.33\mu F$, $C_{OUT} = 0.1\mu F$, $0^{\circ}C \leq T_j \leq 125^{\circ}C$)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN	TYP	MAX	UNIT
Output Voltage	V_{OUT}	1	$T_j = 25^{\circ}C$	-15.6	-15.0	-14.4	V
Input Regulation	Reg Line	1	$T_j = 25^{\circ}C$ $-17.5V \geq V_{IN} \geq -30V$	-	130	300	mV
			$-20V \geq V_{IN} \geq -30V$	-	110	250	
Load Regulation	Reg Load	1	$T_j = 25^{\circ}C$ $1.0mA \geq I_{OUT} \geq 100mA$	-	25	150	mV
			$1.0mA \geq I_{OUT} \geq 40mA$	-	12	75	
Output Voltage	V_{OUT}	1	$-17.5V \geq V_{IN} \geq -30V$ $1.0mA \geq I_{OUT} \geq 40mA$	-15.75	-	-14.25	V
			$V_{IN} = -23V$ $1.0mA \geq I_{OUT} \geq 70mA$	-15.75	-	-14.25	
Quiescent Current	I_B	1	$T_j = 25^{\circ}C$	-	3.3	6.5	mA
			$T_j = 125^{\circ}C$	-	-	6.0	
Quiescent Current Change	ΔI_{BO}	1	$-20V \geq V_{IN} \geq -30V$	-	-	1.5	mA
	ΔI_{BI}	1	$1.0mA \geq I_{OUT} \geq 40mA$	-	-	0.1	
Output Noise Voltage	V_{NO}	1	$T_a = 25^{\circ}C$ $10Hz \leq f \leq 100kHz$	-	90	-	μV
Long Term Stability	$\Delta V_{OUT} / \Delta t$	1		-	30	-	mV/ 1.0kHrs
Ripple Rejection Ratio	RR	1	$-18.5V \geq V_{IN} \geq -28.5V$ $T_j = 25^{\circ}C$, $f = 120kHz$	34	39	-	dB
Dropout Voltage	$ V_{IN} - V_{OUT} $	1	$T_j = 25^{\circ}C$, $I_{OUT} = 40mA$	-	1.7	-	V
Average Temperature Coefficient of Output Voltage	T_{CVO}	1	$I_{OUT} = 5mA$	-	-1.3	-	mV/ $^{\circ}C$

TEST CIRCUIT 1



TEST CIRCUIT 2



TEST CIRCUIT 3

