

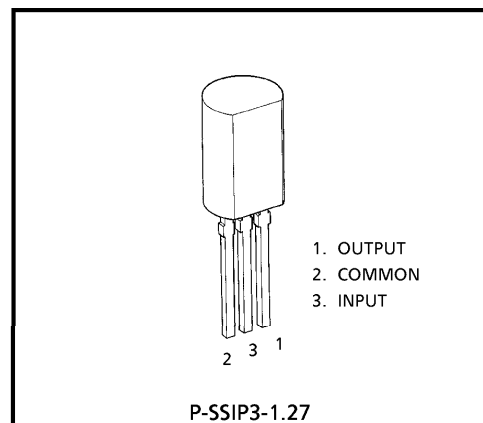
TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

**TA79L005P, TA79L006P, TA79L008P, TA79L009P, TA79L010P
TA79L012P, TA79L015P, TA79L018P, TA79L020P, TA79L024P**

**- 5 V, - 6 V, - 8 V, - 9 V, - 10 V, - 12 V, - 15 V, - 18 V, - 20 V,
- 24 V 3-TERMINAL NEGATIVE VOLTAGE REGULATORS**

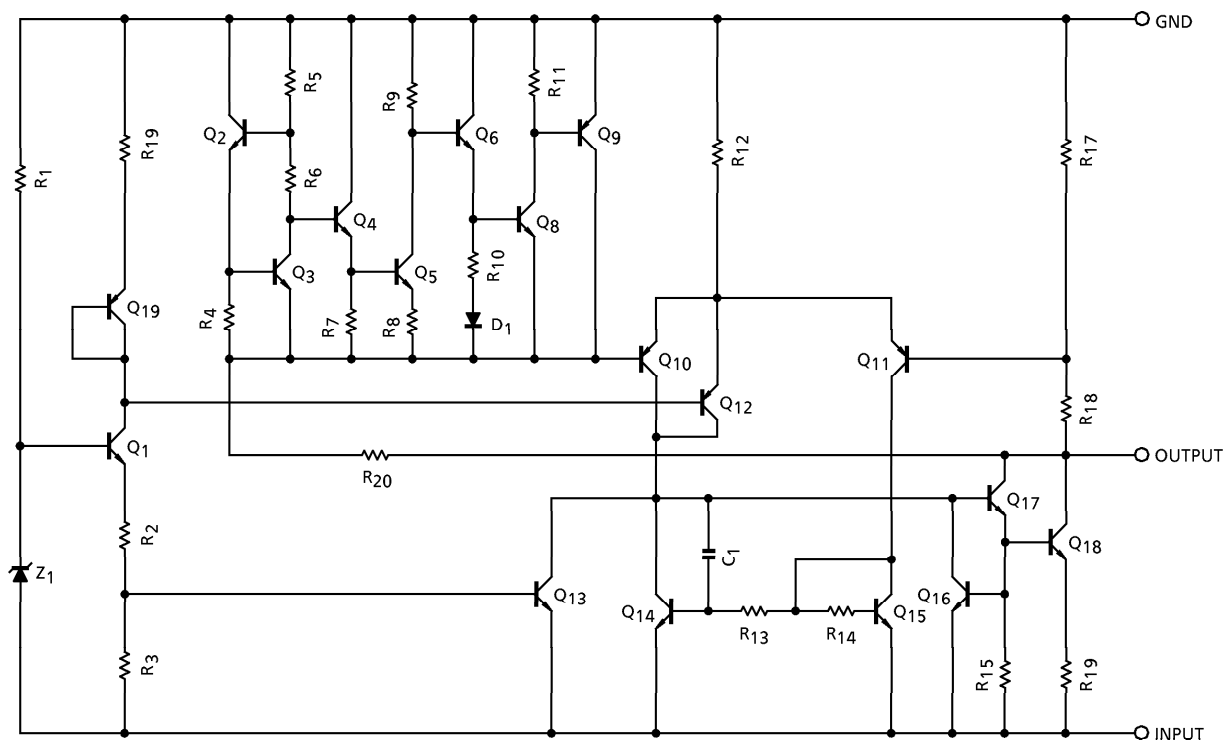
FEATURES

- Best suited to a power supply for TTL and C²MOS
- Built-in overcurrent protective circuit
- Built-in thermal protective circuit
- Max. output current 150 mA ($T_j = 25^\circ\text{C}$)
- Packaged in TO-92MOD



Weight : 0.36 g (Typ.)

EQUIVALENT CIRCUIT



980910EBA2

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- The information contained herein is subject to change without notice.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Input Voltage	TA79L005P	V _{IN}	– 35	V
	TA79L006P			
	TA79L008P			
	TA79L009P			
	TA79L010P			
	TA79L012P			
	TA79L015P			
	TA79L018P			
	TA79L020P		– 40	
	TA79L024P			
Power Dissipation	(Ta = 25°C)	P _D	800	mW
Operating Temperature		T _{opr}	– 30~85	°C
Storage Temperature		T _{stg}	– 55~150	°C
Junction Temperature		T _j	150	°C
Thermal Resistance		R _{th (j-a)}	156	°C / W

TA79L005P

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

CHARACTERISTIC	SYMBOL	TEST CIR- CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage	V _{OUT}	1	T _j = 25°C		− 5.2	− 5.0	− 4.8	V
Line Regulation	Reg·Line	1	T _j = 25°C	− 20 V ≤ V _{IN} ≤ − 7.0 V	—	55	150	mV
				− 20 V ≤ V _{IN} ≤ − 8.0 V	—	45	100	
Load Regulation	Reg·Load	1	T _j = 25°C	1.0 mA ≤ I _{OUT} ≤ 100 mA	—	11	60	mV
				1.0 mA ≤ I _{OUT} ≤ 40 mA	—	5.0	30	
Output Voltage	V _{OUT}	1	T _j = 25°C	− 20 V ≤ V _{IN} ≤ − 7.0 V	− 5.25	—	− 4.75	V
				1.0 mA ≤ I _{OUT} ≤ 40 mA				
				1.0 mA ≤ I _{OUT} ≤ 70 mA	− 5.25	—	− 4.75	
Quiescent Current	I _B	1	T _j = 25°C		—	3.1	6.0	mA
			T _j = 125°C		—	—	5.5	
Quiescent Current Change	ΔI _B	1	− 20 V ≤ V _{IN} ≤ − 8.0 V, T _j = 25°C		—	—	1.5	mA
	ΔI _{BO}	1	1.0 mA ≤ I _{OUT} ≤ 40 mA, T _j = 25°C		—	—	0.1	
Output Noise Voltage	V _{NO}	2	T _a = 25°C 10Hz ≤ f ≤ 100 kHz		—	40	—	μV _{rms}
Long Term Stability	ΔV _{OUT} /Δt	1	—		—	12	—	mV / kh
Ripple Rejection Ratio	R.R.	3	− 18 V ≤ V _{IN} ≤ − 8.0 V T _j = 25°C, f = 120 Hz		41	49	—	dB
Dropout Voltage	V _D	1	T _j = 25°C		—	1.7	—	V
Average Temperature Coefficient of Output Voltage	T _{CV0}	1	I _{OUT} = 5 mA		—	0.6	—	mV / °C

TA79L006P

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, $V_{IN} = -11\text{ V}$, $I_{OUT} = 40\text{ mA}$, $C_{IN} = 0.33\text{ }\mu\text{F}$,
 $C_{OUT} = 0.1\text{ }\mu\text{F}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CIR- CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Voltage	V_{OUT}	1	$T_j = 25^\circ\text{C}$	-6.24	-6.0	-5.76	V
Line Regulation	Reg·Line	1	$T_j = 25^\circ\text{C}$	$-21\text{ V} \leq V_{IN} \leq -8.1\text{ V}$	50	150	mV
				$-21\text{ V} \leq V_{IN} \leq -9.0\text{ V}$	45	110	
Load Regulation	Reg·Load	1	$T_j = 25^\circ\text{C}$	$1.0\text{ mA} \leq I_{OUT} \leq 100\text{ mA}$	12	70	mV
				$1.0\text{ mA} \leq I_{OUT} \leq 40\text{ mA}$	5.5	35	
Output Voltage	V_{OUT}	1	$T_j = 25^\circ\text{C}$	$-21\text{ V} \leq V_{IN} \leq -8.1\text{ V}$	-6.3	-5.7	V
				$1.0\text{ mA} \leq I_{OUT} \leq 40\text{ mA}$	—	—	
				$1.0\text{ mA} \leq I_{OUT} \leq 70\text{ mA}$	-6.3	-5.7	
Quiescent Current	I_B	1	$T_j = 25^\circ\text{C}$	—	3.1	6.0	mA
			$T_j = 125^\circ\text{C}$	—	—	5.5	
Quiescent Current Change	ΔI_B	1	$-21\text{ V} \leq V_{IN} \leq -9.0\text{ V}$, $T_j = 25^\circ\text{C}$	—	—	1.5	mA
	ΔI_{BO}	1	$1.0\text{ mA} \leq I_{OUT} \leq 40\text{ mA}$, $T_j = 25^\circ\text{C}$	—	—	0.1	
Output Noise Voltage	V_{NO}	2	$T_a = 25^\circ\text{C}$ $10\text{ Hz} \leq f \leq 100\text{ kHz}$	—	40	—	μV_{rms}
Long Term Stability	$\Delta V_{OUT} / \Delta t$	1	—	—	14	—	mV / kh
Ripple Rejection Ratio	R.R.	3	$-19\text{ V} \leq V_{IN} \leq -9.0\text{ V}$ $T_j = 25^\circ\text{C}$, $f = 120\text{ Hz}$	39	47	—	dB
Dropout Voltage	V_D	1	$T_j = 25^\circ\text{C}$	—	1.7	—	V
Average Temperature Coefficient of Output Voltage	T_{CVO}	1	$I_{OUT} = 5\text{ mA}$	—	0.7	—	mV / °C

TA79L008P

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, $V_{IN} = -14\text{ V}$, $I_{OUT} = 40\text{ mA}$, $C_{IN} = 0.33\text{ }\mu\text{F}$,
 $C_{OUT} = 0.1\text{ }\mu\text{F}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CIR- CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage	V _{OUT}	1	T _j = 25°C		- 8.3	- 8.0	- 7.7	V
Line Regulation	Reg·Line	1	T _j = 25°C	- 23 V ≤ V _{IN} ≤ - 10.5 V	—	20	175	mV
				- 23 V ≤ V _{IN} ≤ - 11 V	—	12	125	
Load Regulation	Reg·Load	1	T _j = 25°C	1.0 mA ≤ I _{OUT} ≤ 100 mA	—	15	80	mV
				1.0mA ≤ I _{OUT} ≤ 40 mA	—	7.0	40	
Output Voltage	V _{OUT}	1	T _j = 25°C	- 23 V ≤ V _{IN} ≤ - 10.5 V	- 8.4	—	- 7.6	V
				1.0 mA ≤ I _{OUT} ≤ 40 mA				
				1.0 mA ≤ I _{OUT} ≤ 70 mA				
Quiescent Current	I _B	1	T _j = 25°C		—	3.1	6.5	mA
			T _j = 125°C		—	—	6.0	
Quiescent Current Change	ΔI _B	1	- 23 V ≤ V _{IN} ≤ - 11 V, T _j = 25°C		—	—	1.5	mA
	ΔI _{BO}	1	1.0 mA ≤ I _{OUT} ≤ 40 mA, T _j = 25°C		—	—	0.1	
Output Noise Voltage	V _{NO}	2	T _a = 25°C 10 Hz ≤ f ≤ 100 kHz		—	60	—	μV _{rms}
Long Term Stability	ΔV _{OUT} / Δt	1	—		—	20	—	mV / kh
Ripple Rejection Ratio	R.R.	3	- 23 V ≤ V _{IN} ≤ - 12 V T _j = 25°C, f = 120 Hz		37	45	—	dB
Dropout Voltage	V _D	1	T _j = 25°C		—	1.7	—	V
Average Temperature Coefficient of Output Voltage	T _{CVO}	1	I _{OUT} = 5 mA		—	0.8	—	mV / °C

TA79L009P

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

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
Line Regulation	Reg·Line	1	T _j = 25°C	-24 V ≤ V _{IN} ≤ -11.4 V	—	80	200	mV
				-24 V ≤ V _{IN} ≤ -12 V	—	20	160	
Load Regulation	Reg·Load	1	T _j = 25°C	1.0 mA ≤ I _{OUT} ≤ 100 mA	—	17	90	mV
				1.0 mA ≤ I _{OUT} ≤ 40 mA	—	8.0	45	
Output Voltage	V _{OUT}	1	T _j = 25°C	-24 V ≤ V _{IN} ≤ -11.4 V	-9.45	—	-8.55	V
				1.0 mA ≤ I _{OUT} ≤ 40 mA				
				1.0 mA ≤ I _{OUT} ≤ 70 mA	-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 _B	1	-24 V ≤ V _{IN} ≤ -12 V, T _j = 25°C		—	—	1.5	mA
	ΔI _{BO}	1	1.0 mA ≤ I _{OUT} ≤ 40 mA, T _j = 25°C		—	—	0.1	
Output Noise Voltage	V _{NO}	2	T _a = 25°C 10 Hz ≤ f ≤ 100 kHz		—	65	—	μV _{rms}
Long Term Stability	ΔV _{OUT} / Δt	1	—		—	21	—	mV / kh
Ripple Rejection Ratio	R.R.	3	-24 V ≤ V _{IN} ≤ -12 V T _j = 25°C, f = 120 Hz		36	44	—	dB
Dropout Voltage	V _D	1	T _j = 25°C		—	1.7	—	V
Average Temperature Coefficient of Output Voltage	T _{CVO}	1	I _{OUT} = 5 mA		—	0.85	—	mV / °C

TA79L010P

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, $V_{IN} = -16V$, $I_{OUT} = 40\text{ mA}$, $C_{IN} = 0.33\text{ }\mu\text{F}$,
 $C_{OUT} = 0.1\text{ }\mu\text{F}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CIR- CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage	V _{OUT}	1	T _j = 25°C		- 10.4	- 10.0	- 9.6	V
Line Regulation	Reg·Line	1	T _j = 25°C	- 25 V ≤ V _{IN} ≤ - 12.5 V	—	80	230	mV
				- 25 V ≤ V _{IN} ≤ - 13 V	—	30	170	
Load Regulation	Reg·Load	1	T _j = 25°C	1.0 mA ≤ I _{OUT} ≤ 100 mA	—	18	90	mV
				1.0 mA ≤ I _{OUT} ≤ 40 mA	—	8.5	45	
Output Voltage	V _{OUT}	1	T _j = 25°C	- 25 V ≤ V _{IN} ≤ - 12.5 V	- 10.5	—	- 9.5	V
				1.0 mA ≤ I _{OUT} ≤ 40 mA				
				1.0 mA ≤ I _{OUT} ≤ 70 mA	- 10.5	—	- 9.5	
Quiescent Current	I _B	1	T _j = 25°C		—	3.2	6.5	mA
			T _j = 125°C		—	—	6.0	
Quiescent Current Change	ΔI _B	1	- 25 V ≤ V _{IN} ≤ - 13 V, T _j = 25°C		—	—	1.5	mA
	ΔI _{BO}	1	1.0 mA ≤ I _{OUT} ≤ 40 mA, T _j = 25°C		—	—	0.1	
Output Noise Voltage	V _{NO}	2	T _a = 25°C 10 Hz ≤ f ≤ 100 kHz		—	70	—	μV _{rms}
Long Term Stability	ΔV _{OUT} / Δt	1	—		—	22	—	mV / kh
Ripple Rejection Ratio	R.R.	3	- 24 V ≤ V _{IN} ≤ - 13 V T _j = 25°C, f = 120 Hz		36	43	—	dB
Dropout Voltage	V _D	1	T _j = 25°C		—	1.7	—	V
Average Temperature Coefficient of Output Voltage	T _{CVO}	1	I _{OUT} = 5 mA		—	0.9	—	mV / °C

TA79L012P

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

CHARACTERISTIC	SYMBOL	TEST CIR- CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage	V _{OUT}	1	T _j = 25°C		- 12.5	- 12.0	- 11.5	V
Line Regulation	Reg·line	1	T _j = 25°C	- 27 V ≤ V _{IN} ≤ - 14.5 V	—	120	250	mV
				- 27 V ≤ V _{IN} ≤ - 16 V	—	100	200	
Load Regulation	Reg·load	1	T _j = 25°C	1.0 mA ≤ I _{OUT} ≤ 100 mA	—	20	100	mV
				1.0 mA ≤ I _{OUT} ≤ 40 mA	—	10	50	
Output Voltage	V _{OUT}	1	T _j = 25°C	- 27 V ≤ V _{IN} ≤ - 14.5 V	- 12.6	—	- 11.4	V
				1.0 mA ≤ I _{OUT} ≤ 40 mA				
				1.0 mA ≤ I _{OUT} ≤ 70 mA				
Quiescent Current	I _B	1	T _j = 25°C		—	3.2	6.5	mA
			T _j = 125°C		—	—	6.0	
Quiescent Current Change	ΔI _B	1	- 27 V ≤ V _{IN} ≤ - 16 V, T _j = 25°C		—	—	1.5	mA
	ΔI _{BO}	1	1.0 mA ≤ I _{OUT} ≤ 40 mA, T _j = 25°C		—	—	0.1	
Output Noise Voltage	V _{NO}	2	T _a = 25°C 10 Hz ≤ f ≤ 100 kHz		—	80	—	μV _{rms}
Long Term Stability	ΔV _{OUT} / Δt	1	—		—	24	—	mV / kh
Ripple Rejection Ratio	R.R.	3	- 25 V ≤ V _{IN} ≤ - 15 V T _j = 25°C, f = 120 Hz		37	42	—	dB
Dropout Voltage	V _D	1	T _j = 25°C		—	1.7	—	V
Average Temperature Coefficient of Output Voltage	T _{CVO}	1	I _{OUT} = 5 mA		—	1.0	—	mV / °C

TA79L015P

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

CHARACTERISTIC	SYMBOL	TEST CIR- CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage	V _{OUT}	1	T _j = 25°C		− 15.6	− 15.0	− 14.4	V
Line Regulation	Reg·line	1	T _j = 25°C	− 30 V ≤ V _{IN} ≤ − 17.5 V	—	130	300	mV
				− 30 V ≤ V _{IN} ≤ − 20 V	—	110	250	
Load Regulation	Reg·load	1	T _j = 25°C	1.0 mA ≤ I _{OUT} ≤ 100 mA	—	25	150	mV
				1.0 mA ≤ I _{OUT} ≤ 40 mA	—	12	75	
Output Voltage	V _{OUT}	1	T _j = 25°C	− 30 V ≤ V _{IN} ≤ − 17.5 V	− 15.75	—	− 14.25	V
				1.0 mA ≤ I _{OUT} ≤ 40 mA				
				1.0 mA ≤ I _{OUT} ≤ 70 mA				
Quiescent Current	I _B	1	T _j = 25°C		—	3.3	6.5	mA
			T _j = 125°C		—	—	6.0	
Quiescent Current Change	ΔI _B	1	− 30 V ≤ V _{IN} ≤ − 20 V, T _j = 25°C		—	—	1.5	mA
	ΔI _{BO}	1	1.0 mA ≤ I _{OUT} ≤ 40 mA, T _j = 25°C		—	—	0.1	
Output Noise Voltage	V _{NO}	2	T _a = 25°C 10 Hz ≤ f ≤ 100 kHz		—	90	—	μV _{rms}
Long Term Stability	ΔV _{OUT} / Δt	1	—		—	30	—	mV / kh
Ripple Rejection Ratio	R.R.	3	− 28.5 V ≤ V _{IN} ≤ − 18.5 V T _j = 25°C, f = 120 Hz		34	39	—	dB
Dropout Voltage	V _D	1	T _j = 25°C		—	1.7	—	V
Average Temperature Coefficient of Output Voltage	T _{CVO}	1	I _{OUT} = 5 mA		—	1.3	—	mV / °C

TA79L018P

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, $V_{IN} = -27\text{ V}$, $I_{OUT} = 40\text{ mA}$, $C_{IN} = 0.33\text{ }\mu\text{F}$, $C_{OUT} = 0.1\text{ }\mu\text{F}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage	V _{OUT}	1	T _j = 25°C		− 18.7	− 18.0	− 17.3	V
Line Regulation	Reg·line	1	T _j = 25°C	− 33 V ≤ V _{IN} ≤ 20.7 V	—	32	325	mV
				− 33 V ≤ V _{IN} ≤ − 21 V	—	27	275	
Load Regulation	Reg·load	1	T _j = 25°C	1.0 mA ≤ I _{OUT} ≤ 100 mA	—	30	170	mV
				1.0 mA ≤ I _{OUT} ≤ 40 mA	—	15	75	
Output Voltage	V _{OUT}	1	T _j = 25°C	− 33 V ≤ V _{IN} ≤ − 20.9 V	− 18.9	—	− 17.1	V
				1.0 mA ≤ I _{OUT} ≤ 40 mA				
				1.0 mA ≤ I _{OUT} ≤ 70 mA	− 18.9	—	− 17.1	
Quiescent Current	I _B	1	T _j = 25°C		—	3.3	6.5	mA
			T _j = 125°C		—	—	6.0	
Quiescent Current Change	ΔI _B	1	− 33 V ≤ V _{IN} ≤ − 21 V, T _j = 25°C		—	—	1.5	mA
	ΔI _{BO}	1	1.0 mA ≤ I _{OUT} ≤ 40 mA, T _j = 25°C		—	—	0.1	
Output Noise Voltage	V _{NO}	2	T _a = 25°C 10 Hz ≤ f ≤ 100 kHz		—	150	—	μV _{rms}
Long Term Stability	ΔV _{OUT} / Δt	1	—		—	45	—	mV / kh
Ripple Rejection Ratio	R.R.	3	− 33 V ≤ V _{IN} ≤ − 23 V T _j = 25°C, f = 120 Hz		33	48	—	dB
Dropout Voltage	V _D	1	T _j = 25°C		—	1.7	—	V
Average Temperature Coefficient of Output Voltage	T _{CVO}	1	I _{OUT} = 5 mA		—	1.5	—	mV / °C

TA79L020P

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, $V_{IN} = -29\text{ V}$, $I_{OUT} = 40\text{ mA}$, $C_{IN} = 0.33\text{ }\mu\text{F}$, $C_{OUT} = 0.1\text{ }\mu\text{F}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CIR- CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage	V _{OUT}	1	T _j = 25°C		- 20.8	- 20.0	- 19.2	V
Line Regulation	Reg·line	1	T _j = 25°C	- 35 V ≤ V _{IN} ≤ - 23.5 V	—	33	330	mV
				- 35 V ≤ V _{IN} ≤ - 24 V	—	28	285	
Load Regulation	Reg·load	1	T _j = 25°C	1.0 mA ≤ I _{OUT} ≤ 100 mA	—	33	180	mV
				1.0 mA ≤ I _{OUT} ≤ 40 mA	—	17	90	
Output Voltage	V _{OUT}	1	T _j = 25°C	- 35 V ≤ V _{IN} ≤ - 23.5 V	- 21.0	—	- 19.0	V
				1.0 mA ≤ I _{OUT} ≤ 40 mA				
				1.0 mA ≤ I _{OUT} ≤ 70 mA				
Quiescent Current	I _B	1	T _j = 25°C	—	3.3	6.5	mA	
			T _j = 125°C	—	—	6.0		
Quiescent Current Change	ΔI _B	1	- 35 V ≤ V _{IN} ≤ - 24 V, T _j = 25°C		—	—	1.5	mA
	ΔI _{BO}	1	10 mA ≤ I _{OUT} ≤ 40 mA, T _j = 25°C		—	—	0.1	
Output Noise Voltage	V _{NO}	2	T _a = 25°C 10 Hz ≤ f ≤ 100 kHz		—	170	—	μV _{rms}
Long Term Stability	ΔV _{OUT} / Δt	1	—		—	49	—	mV / kh
Ripple Rejection Ratio	R.R.	3	- 35 V ≤ V _{IN} ≤ - 27 V T _j = 25°C, f = 120 Hz		31	37	—	dB
Dropout Voltage	V _D	1	T _j = 25°C		—	1.7	—	V
Average Temperature Coefficient of Output Voltage	T _{CVO}	1	I _{OUT} = 5 mA		—	1.7	—	mV / °C

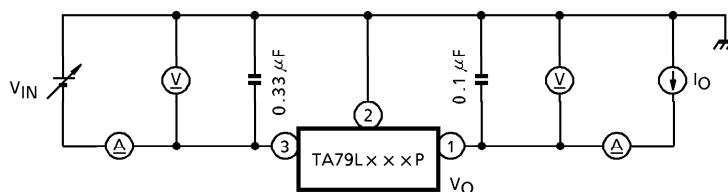
TA79L024P

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, $V_{IN} = -33\text{ V}$, $I_{OUT} = 40\text{ mA}$, $C_{IN} = 0.33\text{ }\mu\text{F}$, $C_{OUT} = 0.1\text{ }\mu\text{F}$, $0^\circ\text{C} \leq T_j \leq 125^\circ\text{C}$)

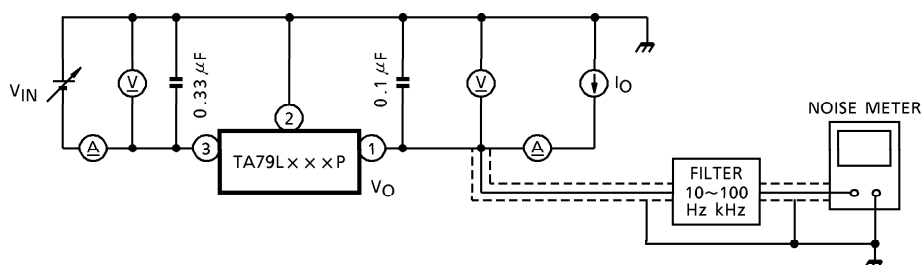
CHARACTERISTIC	SYMBOL	TEST CIR- CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Voltage	V_{OUT}	1	$T_j = 25^\circ\text{C}$	-25.0	-24.0	-23.0	V
Line Regulation	Reg·line	1	$T_j = 25^\circ\text{C}$	—	35	350	mV
			$-38\text{ V} \leq V_{IN} \leq -28\text{ V}$	—	30	300	
Load Regulation	Reg·load	1	$T_j = 25^\circ\text{C}$	—	40	200	mV
			$1.0\text{ mA} \leq I_{OUT} \leq 40\text{ mA}$	—	20	100	
Output Voltage	V_{OUT}	1	$T_j = 25^\circ\text{C}$	-25.2	—	-22.8	V
			$-38\text{ V} \leq V_{IN} \leq -27\text{ V}$	—	—	—	
			$1.0\text{ mA} \leq I_{OUT} \leq 40\text{ mA}$	-25.2	—	-22.8	
Quiescent Current	I_B	1	$T_j = 25^\circ\text{C}$	—	3.5	6.5	mA
			$T_j = 125^\circ\text{C}$	—	—	6.0	
Quiescent Current Change	ΔI_B	1	$-38\text{ V} \leq V_{IN} \leq -28\text{ V}$, $T_j = 25^\circ\text{C}$	—	—	1.5	mA
	ΔI_{BO}	1	$1.0\text{ mA} \leq I_{OUT} \leq 40\text{ mA}$, $T_j = 25^\circ\text{C}$	—	—	0.1	
Output Noise Voltage	V_{NO}	2	$T_a = 25^\circ\text{C}$ $10\text{ Hz} \leq f \leq 100\text{ kHz}$	—	200	—	μV_{rms}
Long Term Stability	$\Delta V_{OUT} / \Delta t$	1	—	—	56	—	mV / kh
Ripple Rejection Ratio	R.R.	3	$-35\text{ V} \leq V_{IN} \leq -29\text{ V}$ $T_j = 25^\circ\text{C}$, $f = 120\text{ Hz}$	31	47	—	dB
Dropout Voltage	V_D	1	$T_j = 25^\circ\text{C}$	—	1.7	—	V
Average Temperature Coefficient of Output Voltage	T_{CVO}	1	$I_{OUT} = 5\text{ mA}$	—	2.0	—	mV / $^\circ\text{C}$

TEST CIRCUIT

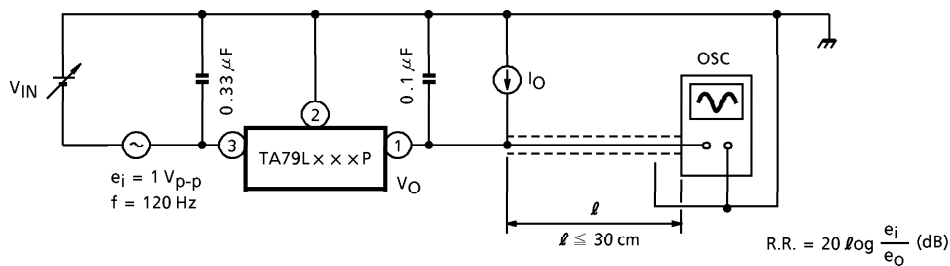
1. V_{OUT} , Reg.line, Reg.load, I_B , ΔI_B , $\Delta V_{OUT}/\Delta t$, V_D , T_{CVO}

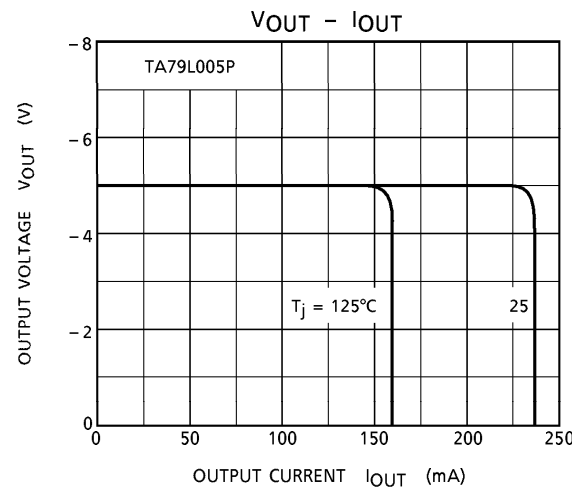
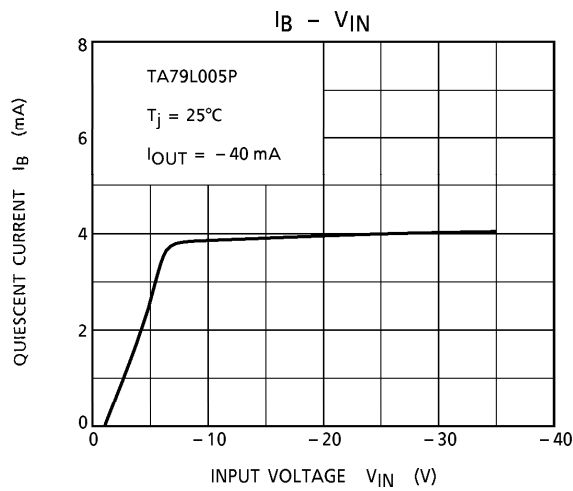
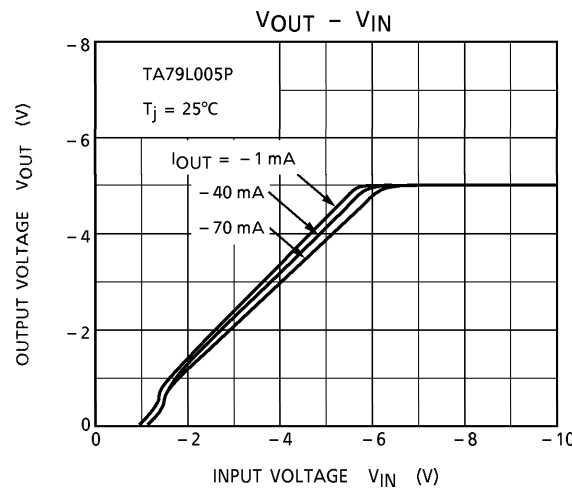
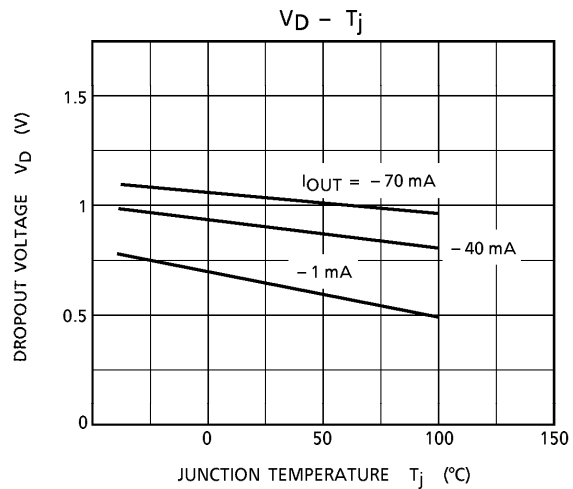
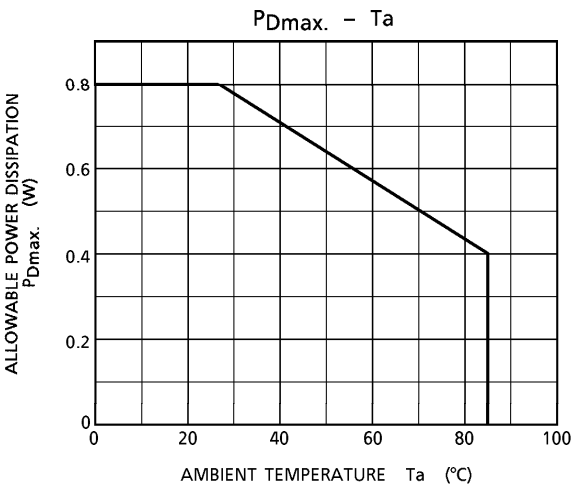


2. V_{NO}

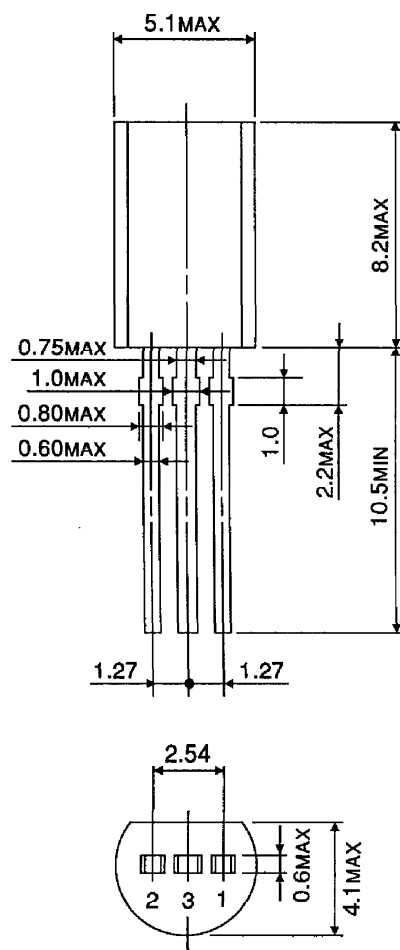


3. R.R.





Unit : mm



Weight : 0.36 g (Typ.)