TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

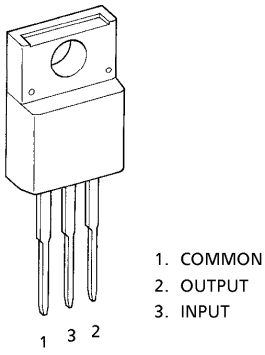
TA79005S, TA79006S, TA79007S, TA79008S, TA79009S, TA79010S TA79012S, TA79015S, TA79018S, TA79020S, TA79024S

1A THREE TERMINAL NEGATIVE VOLTAGE REGULATORS

−5 V, −6 V, −7 V, −8 V, −9 V, −10 V, −12 V, −15 V, −18 V, −20 V, −24 V

FEATURES

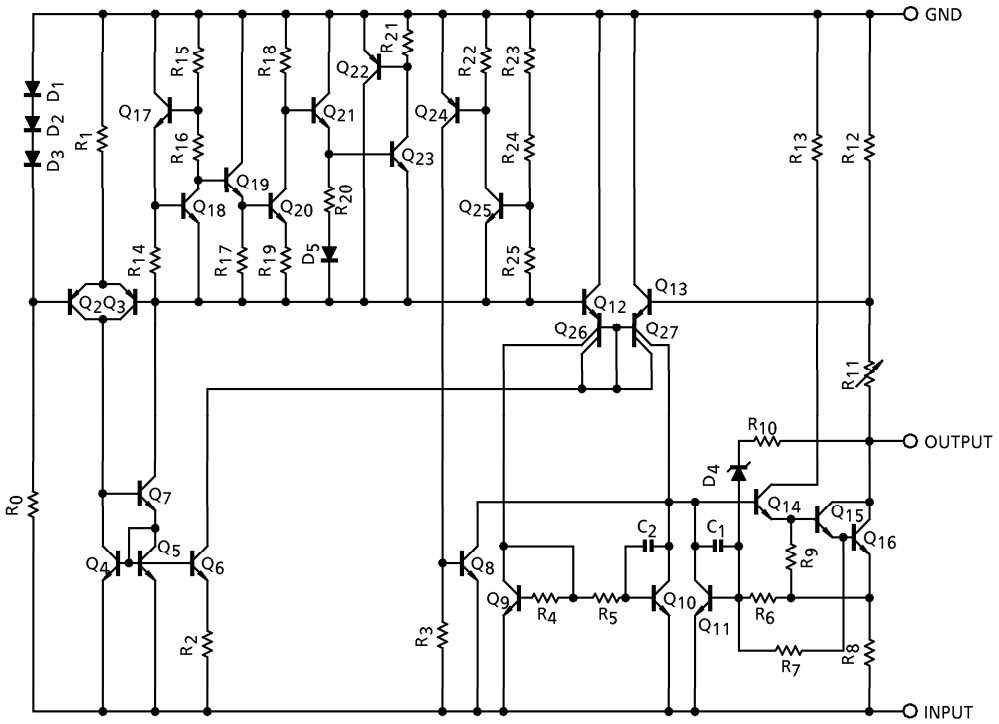
- Suitable for CMOS, TTL, and the other Digital IC Power Supply
- Internal Thermal Overload Protecting
- Internal Short Circuit Current Limiting
- Output Current in Excess of 1.0 A
- Metal Fin (Tab) is fully covered with Mold Resin. (TO-220 NIS package)



P-HSIP3-2.54A

Weight : 1.7 g (Typ.)

EQUIVALENT CIRCUIT



000707EBA2

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Input Voltage	TA79005S	V_{IN}	−35	V
	TA79006S			
	TA79007S			
	TA79008S			
	TA79009S			
	TA79010S			
	TA79012S			
	TA79015S			
	TA79018S		−40	
	TA79020S			
	TA79024S			
Power Dissipation	(Ta = 25°C)	P_D	2	W
	(Tc = 25°C)		20	
Operating Temperature		T_{opr}	−30~85	°C
Storage Temperature		T_{stg}	−55~150	°C
Junction Temperature		T_j	150	°C
Thermal Resistance		$R_{th\ (j-c)}$	6.25	°C / W
		$R_{th\ (j-a)}$	62.5	

TA79005S

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{IN} = −10 V, I_{OUT} = 500 mA, 0°C ≦ T_j ≦ 125°C, C_{IN} = 0.33 μF, C_{OUT} = 0.1 μF)

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	−12 V ≦ V_{IN} ≦ −8 V	—	7	50	mV
					−25 V ≦ V_{IN} ≦ −7 V	—	35	100	
Load Regulation		Reg·load	1	T_j = 25°C	5 mA ≦ I_{OUT} ≦ 1.5 A	—	11	100	mV
					250 mA ≦ I_{OUT} ≦ 750 mA	—	4	50	
Output Voltage		V_{OUT}	1	T_j = 25°C	−20 V ≦ V_{IN} ≦ −7 V 5 mA ≦ I_{OUT} ≦ 1.0 A	−5.25	—	−4.75	V
Quiescent Current		I_B	1	T_j = 25°C		—	4.3	8.0	mA
Quiescent Current Change	Line	ΔI_B	1	−25 V ≦ V_{IN} ≦ −7 V, T_j = 25°C		—	—	1.3	mA
	Load		1	5 mA ≦ I_{OUT} ≦ 1.0 A, T_j = 25°C		—	—	0.5	
Output Noise Voltage		V_{NO}	2	Ta = 25°C, I_{OUT} = 20 mA, 10 Hz ≦ f ≦ 100 kHz		—	40	—	μV_{rms}
Ripple Rejection		R.R.	3	f = 120 Hz, I_{OUT} = 20 mA, T_j = 25°C		63	70	—	dB
Short Circuit Current Limit		I_{SC}	1	T_j = 25°C		—	1.9	—	A
Dropout Voltage		V_D	1	T_j = 25°C, I_{OUT} = 1.0 A		—	2.0	—	V
Average Temperature Coefficient Of Output Voltage		T_{CVO}	1	I_{OUT} = 5.0 mA		—	0.6	—	mV / °C

TA79006S

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{IN} = −11 V, I_{OUT} = 500 mA, 0°C ≦ T_j ≦ 125°C, C_{IN} = 0.33 μF, C_{OUT} = 0.1 μF)

CHARACTERISTIC		SYMBOL	TEST CIR-CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V_{OUT}	1	T_j = 25°C		−6.25	−6.0	−5.75	V
Line Regulation		Reg·line	1	T_j = 25°C	−13 V ≦ V_{IN} ≦ −9 V	—	9	60	mV
					−25 V ≦ V_{IN} ≦ −8 V	—	43	120	
Load Regulation		Reg·load	1	T_j = 25°C	5 mA ≦ I_{OUT} ≦ 1.5 A	—	13	120	mV
					250 mA ≦ I_{OUT} ≦ 750 mA	—	5	60	
Output Voltage		V_{OUT}	1	T_j = 25°C	−21 V ≦ V_{IN} ≦ −8 V 5 mA ≦ I_{OUT} ≦ 1.0 A	−6.3	—	−5.7	V
Quiescent Current		I_B	1	T_j = 25°C		—	4.3	8.0	mA
Quiescent Current Change	Line	ΔI_B	1	−25 V ≦ V_{IN} ≦ −8 V, T_j = 25°C		—	—	1.3	mA
	Load		1	5 mA ≦ I_{OUT} ≦ 1.0 A, T_j = 25°C		—	—	0.5	
Output Noise Voltage		V_{NO}	2	Ta = 25°C, I_{OUT} = 20 mA, 10 Hz ≦ f ≦ 100 kHz		—	45	—	μV_{rms}
Ripple Rejection		R.R.	3	f = 120 Hz, I_{OUT} = 20 mA, T_j = 25°C		61	68	—	dB
Short Circuit Current Limit		I_{SC}	1	T_j = 25°C		—	1.9	—	A
Dropout Voltage		V_D	1	T_j = 25°C, I_{OUT} = 1.0 A		—	2.0	—	V
Average Temperature Coefficient Of Output Voltage		T_{CVO}	1	I_{OUT} = 5.0 mA		—	0.7	—	mV / °C

TA79007S

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{IN} = – 12 V, I_{OUT} = 500 mA, 0°C ≦ T_j ≦ 125°C, C_{IN} = 0.33 μF, C_{OUT} = 0.1 μF)

CHARACTERISTIC		SYMBOL	TEST CIR-CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V_{OUT}	1	T_j = 25°C		– 7.28	– 7.0	– 6.72	V
Line Regulation		Reg·line	1	T_j = 25°C	– 15 V ≦ V_{IN} ≦ – 10 V	—	10	70	mV
					– 25 V ≦ V_{IN} ≦ – 9 V	—	45	140	
Load Regulation		Reg·load	1	T_j = 25°C	5 mA ≦ I_{OUT} ≦ 1.5 A	—	20	140	mV
					250 mA ≦ I_{OUT} ≦ 750 mA	—	7	70	
Output Voltage		V_{OUT}	1	T_j = 25°C	– 22 V ≦ V_{IN} ≦ – 9 V 5 mA ≦ I_{OUT} ≦ 1.0 A	– 7.35	—	– 6.65	V
Quiescent Current		I_B	1	T_j = 25°C		—	4.3	8.0	mA
Quiescent Current Change	Line	ΔI_B	1	– 25 V ≦ V_{IN} ≦ – 9 V, T_j = 25°C		—	—	1.0	mA
	Load		1	5 mA ≦ I_{OUT} ≦ 1.0 A, T_j = 25°C		—	—	0.5	
Output Noise Voltage		V_{NO}	2	Ta = 25°C, I_{OUT} = 20 mA, 10 Hz ≦ f ≦ 100 kHz		—	49	—	μV_{rms}
Ripple Rejection		R.R.	3	f = 120 Hz, I_{OUT} = 20 mA, T_j = 25°C		60	67	—	dB
Short Circuit Current Limit		I_{SC}	1	T_j = 25°C		—	1.9	—	A
Dropout Voltage		V_D	1	T_j = 25°C, I_{OUT} = 1.0 A		—	2.0	—	V
Average Temperature Coefficient Of Output Voltage		T_{CVO}	1	I_{OUT} = 5.0 mA		—	0.9	—	mV / °C

TA79008S

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{IN} = −14 V, I_{OUT} = 500 mA, 0°C ≦ T_j ≦ 125°C, C_{IN} = 0.33 μF, C_{OUT} = 0.1 μF)

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	−17 V ≦ V_{IN} ≦ −11 V	—	11	80	mV
					−25 V ≦ V_{IN} ≦ −10.5 V	—	47	160	
Load Regulation		Reg·load	1	T_j = 25°C	5 mA ≦ I_{OUT} ≦ 1.5 A	—	26	160	mV
					250 mA ≦ I_{OUT} ≦ 750 mA	—	9	80	
Output Voltage		V_{OUT}	1	T_j = 25°C	−23 V ≦ V_{IN} ≦ −10.5 V 5 mA ≦ I_{OUT} ≦ 1.0 A	−8.4	—	−7.6	V
Quiescent Current		I_B	1	T_j = 25°C		—	4.3	8.0	mA
Quiescent Current Change	Line	ΔI_B	1	−25 V ≦ V_{IN} ≦ −10.5 V, T_j = 25°C		—	—	1.0	mA
	Load		1	5 mA ≦ I_{OUT} ≦ 1.0 A, T_j = 25°C		—	—	0.5	
Output Noise Voltage		V_{NO}	2	Ta = 25°C, I_{OUT} = 20 mA, 10 Hz ≦ f ≦ 100 kHz		—	52	—	μV_{rms}
Ripple Rejection		R.R.	3	f = 120 Hz, I_{OUT} = 20 mA, T_j = 25°C		59	66	—	dB
Short Circuit Current Limit		I_{SC}	1	T_j = 25°C		—	1.9	—	A
Dropout Voltage		V_D	1	T_j = 25°C, I_{OUT} = 1.0 A		—	2.0	—	V
Average Temperature Coefficient Of Output Voltage		T_{CVO}	1	I_{OUT} = 5.0 mA		—	1.0	—	mV / °C

TA79009S

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{IN} = −15 V, I_{OUT} = 500 mA, 0°C ≦ T_j ≦ 125°C, C_{IN} = 0.33 μF, C_{OUT} = 0.1 μF)

CHARACTERISTIC		SYMBOL	TEST CIR-CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V_{OUT}	1	T_j = 25°C		−9.3	−9.0	−8.7	V
Line Regulation		Reg·line	1	T_j = 25°C	−19 V ≦ V_{IN} ≦ −13 V	—	11	82	mV
					−26 V ≦ V_{IN} ≦ −11.5 V	—	48	162	
Load Regulation		Reg·load	1	T_j = 25°C	5 mA ≦ I_{OUT} ≦ 1.5 A	—	33	162	mV
					250 mA ≦ I_{OUT} ≦ 750 mA	—	11	82	
Output Voltage		V_{OUT}	1	T_j = 25°C	−24 V ≦ V_{IN} ≦ −11.5 V 5 mA ≦ I_{OUT} ≦ 1.0 A	−9.4	—	−8.6	V
Quiescent Current		I_B	1	T_j = 25°C		—	4.3	8.0	mA
Quiescent Current Change	Line	ΔI_B	1	−26.5 V ≦ V_{IN} ≦ −13 V, T_j = 25°C		—	—	1.0	mA
	Load		1	5 mA ≦ I_{OUT} ≦ 1.0 A, T_j = 25°C		—	—	0.5	
Output Noise Voltage		V_{NO}	2	Ta = 25°C, I_{OUT} = 20 mA, 10 Hz ≦ f ≦ 100 kHz		—	60	—	μV_{rms}
Ripple Rejection		R.R.	3	f = 120 Hz, I_{OUT} = 20 mA, T_j = 25°C		57	64	—	dB
Short Circuit Current Limit		I_{SC}	1	T_j = 25°C		—	1.9	—	A
Dropout Voltage		V_D	1	T_j = 25°C, I_{OUT} = 1.0 A		—	2.0	—	V
Average Temperature Coefficient Of Output Voltage		T_{CVO}	1	I_{OUT} = 5.0 mA		—	1.1	—	mV / °C

TA79010S

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{IN} = −16 V, I_{OUT} = 500 mA, 0°C ≦ T_j ≦ 125°C, C_{IN} = 0.33 μF, C_{OUT} = 0.1 μF)

CHARACTERISTIC		SYMBOL	TEST CIR-CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V_{OUT}	1	T_j = 25°C		−10.4	−10	−9.6	V
Line Regulation		Reg·line	1	T_j = 25°C	−20 V ≦ V_{IN} ≦ −14 V	—	12	90	mV
					−27 V ≦ V_{IN} ≦ −12.5 V	—	50	180	
Load Regulation		Reg·load	1	T_j = 25°C	5 mA ≦ I_{OUT} ≦ 1.5 A	—	40	180	mV
					250 mA ≦ I_{OUT} ≦ 750 mA	—	13	90	
Output Voltage		V_{OUT}	1	T_j = 25°C	−25 V ≦ V_{IN} ≦ −12.5 V 5 mA ≦ I_{OUT} ≦ 1.0 A	−10.5	—	−9.5	V
Quiescent Current		I_B	1	T_j = 25°C		—	4.4	8.0	mA
Quiescent Current Change	Line	ΔI_B	1	−27.5 V ≦ V_{IN} ≦ −14 V, T_j = 25°C		—	—	1.0	mA
	Load		1	5 mA ≦ I_{OUT} ≦ 1.0 A, T_j = 25°C		—	—	0.5	
Output Noise Voltage		V_{NO}	2	Ta = 25°C, I_{OUT} = 20 mA, 10 Hz ≦ f ≦ 100 kHz		—	65	—	μV_{rms}
Ripple Rejection		R.R.	3	f = 120 Hz, I_{OUT} = 20 mA, T_j = 25°C		57	63	—	dB
Short Circuit Current Limit		I_{SC}	1	T_j = 25°C		—	1.9	—	A
Dropout Voltage		V_D	1	T_j = 25°C, I_{OUT} = 1.0 A		—	2.0	—	V
Average Temperature Coefficient Of Output Voltage		T_{CVO}	1	I_{OUT} = 5.0 mA		—	1.3	—	mV / °C

TA79012S

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{IN} = – 19 V, I_{OUT} = 500 mA, 0°C ≦ T_j ≦ 125°C, C_{IN} = 0.33 μF, C_{OUT} = 0.1 μF)

CHARACTERISTIC		SYMBOL	TEST CIR-CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V_{OUT}	1	T_j = 25°C		– 12.5	– 12	– 11.5	V
Line Regulation		Reg·line	1	T_j = 25°C	– 22 V ≦ V_{IN} ≦ – 16 V	—	13	120	mV
					– 30 V ≦ V_{IN} ≦ – 14.5 V	—	55	240	
Load Regulation		Reg·load	1	T_j = 25°C	5 mA ≦ I_{OUT} ≦ 1.5 A	—	46	240	mV
					250 mA ≦ I_{OUT} ≦ 750 mA	—	17	120	
Output Voltage		V_{OUT}	1	T_j = 25°C	– 27 V ≦ V_{IN} ≦ – 14.5 V 5 mA ≦ I_{OUT} ≦ 1.0 A	– 12.6	—	– 11.4	V
Quiescent Current		I_B	1	T_j = 25°C		—	4.4	8.0	mA
Quiescent Current Change	Line	ΔI_B	1	– 30 V ≦ V_{IN} ≦ – 14.5 V, T_j = 25°C		—	—	1.0	mA
	Load		1	5 mA ≦ I_{OUT} ≦ 1.0 A, T_j = 25°C		—	—	0.5	
Output Noise Voltage		V_{NO}	2	Ta = 25°C, I_{OUT} = 20 mA, 10 Hz ≦ f ≦ 100 kHz		—	75	—	μV_{rms}
Ripple Rejection		R.R.	3	f = 120 Hz, I_{OUT} = 20 mA, T_j = 25°C		54	61	—	dB
Short Circuit Current Limit		I_{SC}	1	T_j = 25°C		—	1.9	—	A
Dropout Voltage		V_D	1	T_j = 25°C, I_{OUT} = 1.0 A		—	2.0	—	V
Average Temperature Coefficient Of Output Voltage		T_{CVO}	1	I_{OUT} = 5.0 mA		—	1.6	—	mV / °C

TA79015S

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{IN} = −23 V, I_{OUT} = 500 mA, 0°C ≦ T_j ≦ 125°C, C_{IN} = 0.33 μF, C_{OUT} = 0.1 μF)

CHARACTERISTIC		SYMBOL	TEST CIR-CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V_{OUT}	1	T_j = 25°C		−15.6	−15	−14.4	V
Line Regulation		Reg·line	1	T_j = 25°C	−26 V ≦ V_{IN} ≦ −20 V	—	14	150	mV
					−30 V ≦ V_{IN} ≦ −17.5 V	—	57	300	
Load Regulation		Reg·load	1	T_j = 25°C	5 mA ≦ I_{OUT} ≦ 1.5 A	—	68	300	mV
					250 mA ≦ I_{OUT} ≦ 750 mA	—	25	150	
Output Voltage		V_{OUT}	1	T_j = 25°C	−30 V ≦ V_{IN} ≦ −17.5 V 5 mA ≦ I_{OUT} ≦ 1.0 A	−15.75	—	−14.25	V
Quiescent Current		I_B	1	T_j = 25°C		—	4.4	8.0	mA
Quiescent Current Change	Line	ΔI_B	1	−30 V ≦ V_{IN} ≦ −17.5 V, T_j = 25°C		—	—	1.0	mA
	Load		1	5 mA ≦ I_{OUT} ≦ 1.0 A, T_j = 25°C		—	—	0.5	
Output Noise Voltage		V_{NO}	2	Ta = 25°C, I_{OUT} = 20 mA, 10 Hz ≦ f ≦ 100 kHz		—	90	—	μV_{rms}
Ripple Rejection		R.R.	3	f = 120 Hz, I_{OUT} = 20 mA, T_j = 25°C		53	60	—	dB
Short Circuit Current Limit		I_{SC}	1	T_j = 25°C		—	1.9	—	A
Dropout Voltage		V_D	1	T_j = 25°C, I_{OUT} = 1.0 A		—	2.0	—	V
Average Temperature Coefficient Of Output Voltage		T_{CVO}	1	I_{OUT} = 5.0 mA		—	2.0	—	mV / °C

TA79018S

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{IN} = −27 V, I_{OUT} = 500 mA, 0°C ≦ T_j ≦ 125°C, C_{IN} = 0.33 μF, C_{OUT} = 0.1 μF)

CHARACTERISTIC		SYMBOL	TEST CIR-CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V_{OUT}	1	T_j = 25°C		−18.7	−18	−17.3	V
Line Regulation		Reg·line	1	T_j = 25°C	−30V ≦ V_{IN} ≦ −24V	—	25	180	mV
					−33 V ≦ V_{IN} ≦ −21 V	—	80	360	
Load Regulation		Reg·load	1	T_j = 25°C	5 mA ≦ I_{OUT} ≦ 1.5 A	—	110	360	mV
					250 mA ≦ I_{OUT} ≦ 750 mA	—	55	180	
Output Voltage		V_{OUT}	1	T_j = 25°C	−33 V ≦ V_{IN} ≦ −21 V 5 mA ≦ I_{OUT} ≦ 1.0 A	−18.85	—	−17.15	V
Quiescent Current		I_B	1	T_j = 25°C		—	4.5	8.0	mA
Quiescent Current Change	Line	ΔI_B	1	−33 V ≦ V_{IN} ≦ −21 V, T_j = 25°C		—	—	1.0	mA
	Load		1	5 mA ≦ I_{OUT} ≦ 1.0 A, T_j = 25°C		—	—	0.5	
Output Noise Voltage		V_{NO}	2	Ta = 25°C, I_{OUT} = 20 mA, 10 Hz ≦ f ≦ 100 kHz		—	110	—	μV_{rms}
Ripple Rejection		R.R.	3	f = 120 Hz, I_{OUT} = 20 mA, T_j = 25°C		52	59	—	dB
Short Circuit Current Limit		I_{SC}	1	T_j = 25°C		—	1.9	—	A
Dropout Voltage		V_D	1	T_j = 25°C, I_{OUT} = 1.0 A		—	2.0	—	V
Average Temperature Coefficient Of Output Voltage		T_{CVO}	1	I_{OUT} = 5.0 mA		—	2.5	—	mV / °C

TA79020S

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{IN} = −30 V, I_{OUT} = 500 mA, 0°C ≦ T_j ≦ 125°C, C_{IN} = 0.33 μF, C_{OUT} = 0.1 μF)

CHARACTERISTIC		SYMBOL	TEST CIR-CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V_{OUT}	1	T_j = 25°C		−20.8	−20	−19.2	V
Line Regulation		Reg·line	1	T_j = 25°C	−32 V ≦ V_{IN} ≦ −26 V	—	28	180	mV
					−35 V ≦ V_{IN} ≦ −24 V	—	104	360	
Load Regulation		Reg·load	1	T_j = 25°C	5 mA ≦ I_{OUT} ≦ 1.5 A	—	130	360	mV
					250 mA ≦ I_{OUT} ≦ 750 mA	—	70	180	
Output Voltage		V_{OUT}	1	T_j = 25°C	−35 V ≦ V_{IN} ≦ −24 V 5 mA ≦ I_{OUT} ≦ 1.0 A	−21.0	—	−19.0	V
Quiescent Current		I_B	1	T_j = 25°C		—	4.6	8.0	mA
Quiescent Current Change	Line	ΔI_B	1	−36.5 V ≦ V_{IN} ≦ −25 V, T_j = 25°C		—	—	1.0	mA
	Load		1	5 mA ≦ I_{OUT} ≦ 1.0 A, T_j = 25°C		—	—	0.5	
Output Noise Voltage		V_{NO}	2	Ta = 25°C, I_{OUT} = 20 mA, 10 Hz ≦ f ≦ 100 kHz		—	140	—	μV_{rms}
Ripple Rejection		R.R.	3	f = 120 Hz, I_{OUT} = 20 mA, T_j = 25°C		50	57	—	dB
Short Circuit Current Limit		I_{SC}	1	T_j = 25°C		—	1.9	—	A
Dropout Voltage		V_D	1	T_j = 25°C, I_{OUT} = 1.0 A		—	2.0	—	V
Average Temperature Coefficient Of Output Voltage		T_{CVO}	1	I_{OUT} = 5.0 mA		—	3.0	—	mV / °C

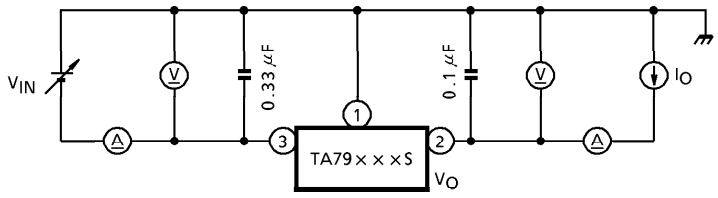
TA79024S

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{IN} = −33 V, I_{OUT} = 500 mA, 0°C ≦ T_j ≦ 125°C, C_{IN} = 0.33 μF, C_{OUT} = 0.1 μF)

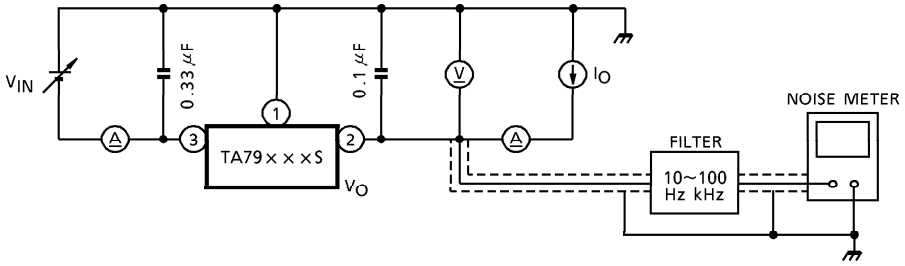
CHARACTERISTIC		SYMBOL	TEST CIR-CUIT	TEST CONDITION		MIN.	TYP.	MAX.	UNIT
Output Voltage		V_{OUT}	1	T_j = 25°C		−25.0	−24	−23.0	V
Line Regulation		Reg·line	1	T_j = 25°C	−36 V ≦ V_{IN} ≦ −30 V	—	31	240	mV
					−38 V ≦ V_{IN} ≦ −27 V	—	118	480	
Load Regulation		Reg·load	1	T_j = 25°C	5 mA ≦ I_{OUT} ≦ 1.5 A	—	150	480	mV
					250 mA ≦ I_{OUT} ≦ 750 mA	—	85	240	
Output Voltage		V_{OUT}	1	T_j = 25°C	−38 V ≦ V_{IN} ≦ −27 V 5 mA ≦ I_{OUT} ≦ 1.0 A	−25.2	—	−22.8	V
Quiescent Current		I_B	1	T_j = 25°C		—	4.6	8.0	mA
Quiescent Current Change	Line	ΔI_B	1	−38 V ≦ V_{IN} ≦ −27 V, T_j = 25°C		—	—	1.0	mA
	Load		1	5 mA ≦ I_{OUT} ≦ 1.0 A, T_j = 25°C		—	—	0.5	
Output Noise Voltage		V_{NO}	2	Ta = 25°C, I_{OUT} = 20 mA, 10 Hz ≦ f ≦ 100 kHz		—	170	—	μV_{rms}
Ripple Rejection		R.R.	3	f = 120 Hz, I_{OUT} = 20 mA, T_j = 25°C		49	56	—	dB
Short Circuit Current Limit		I_{SC}	1	T_j = 25°C		—	1.9	—	A
Dropout Voltage		V_D	1	T_j = 25°C, I_{OUT} = 1.0 A		—	2.0	—	V
Average Temperature Coefficient Of Output Voltage		T_{CVO}	1	I_{OUT} = 5.0 mA		—	3.5	—	mV / °C

TEST CIRCUIT

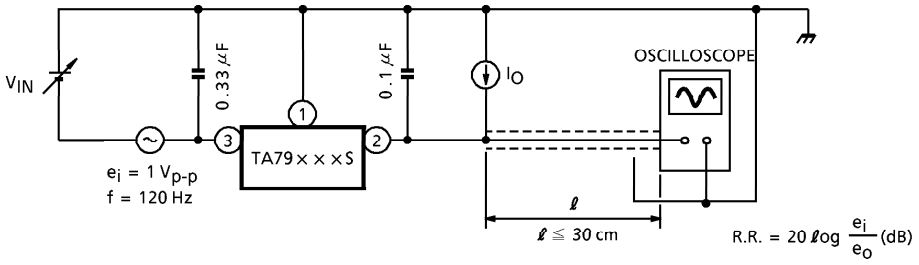
1. V_{OUT}, Reg.line, Reg.load, I_B, ΔI_B, V_D, T_{CVO}



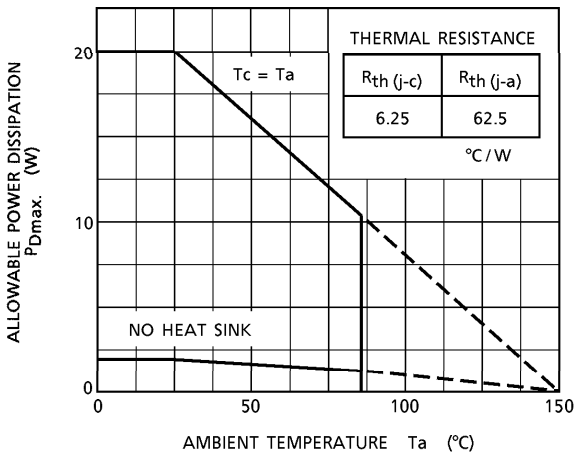
2. V_{NO}



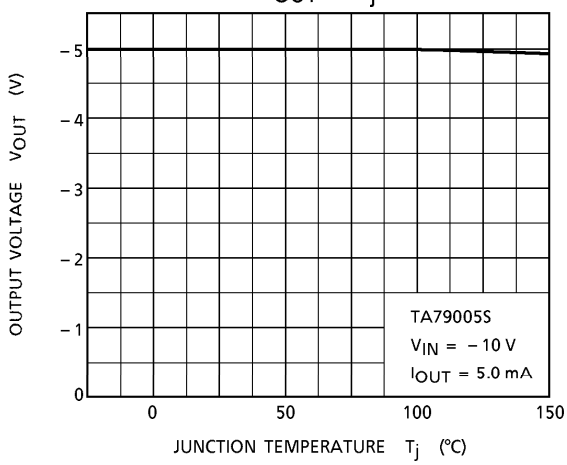
3. R.R.



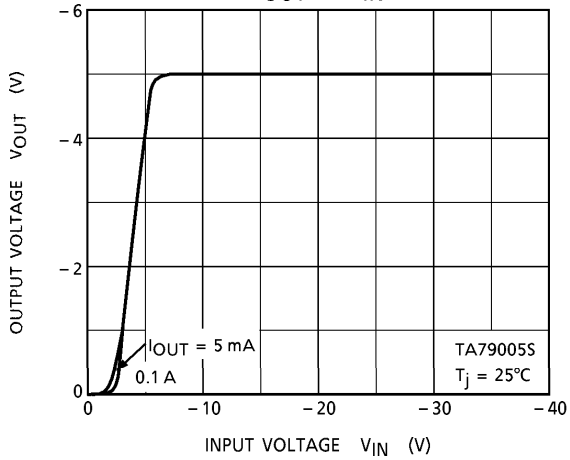
$P_{Dmax.}$ – Ta



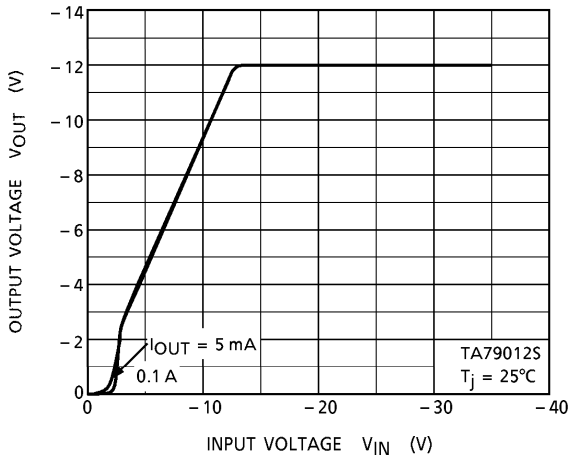
V_{OUT} – T_j



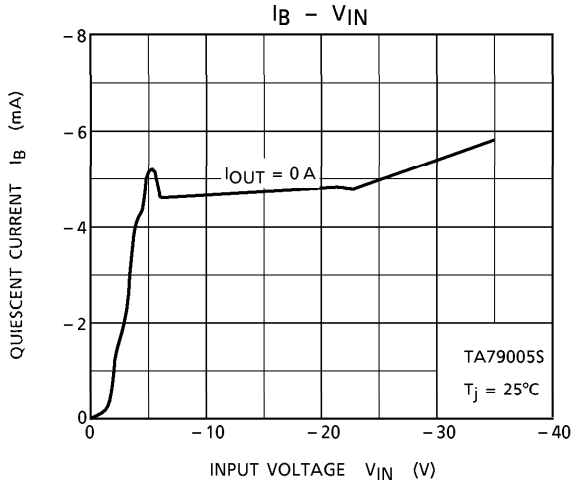
V_{OUT} – V_{IN}



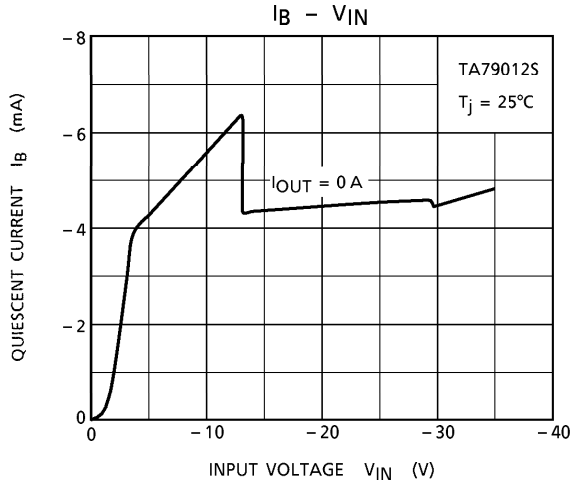
V_{OUT} – V_{IN}



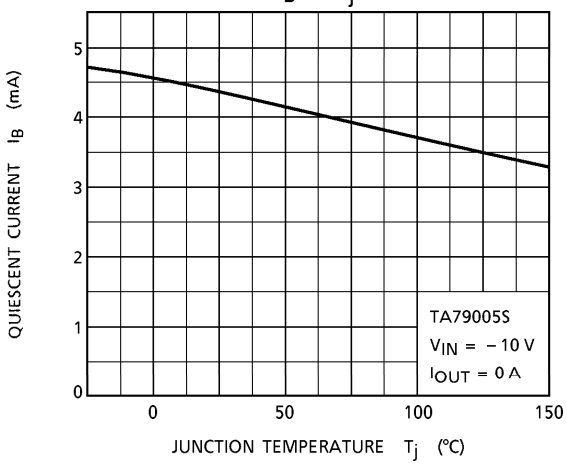
I_B – V_{IN}



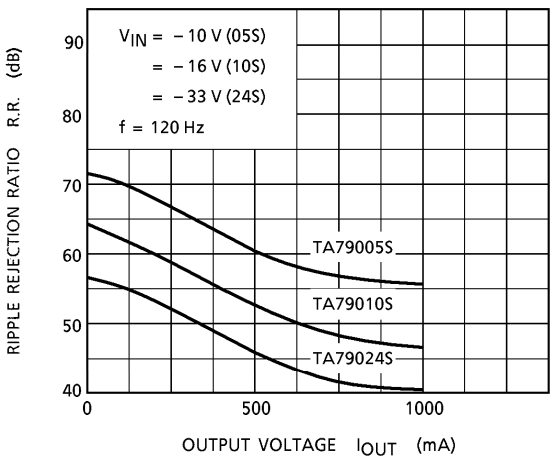
I_B – V_{IN}



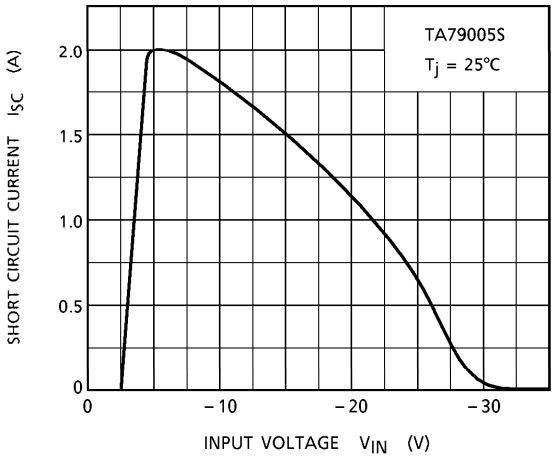
I_B – T_j



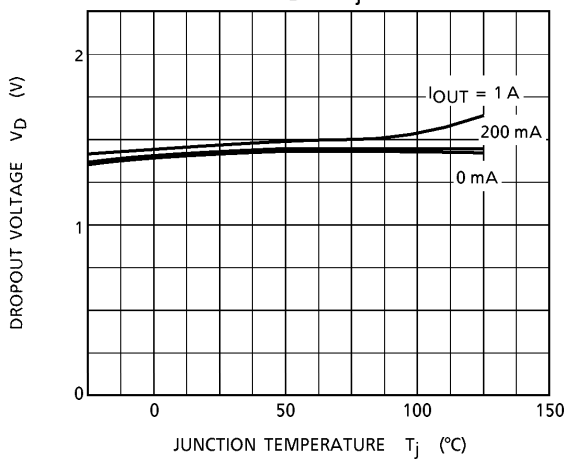
R.R. – I_{OUT}



I_{SC} – V_{IN}



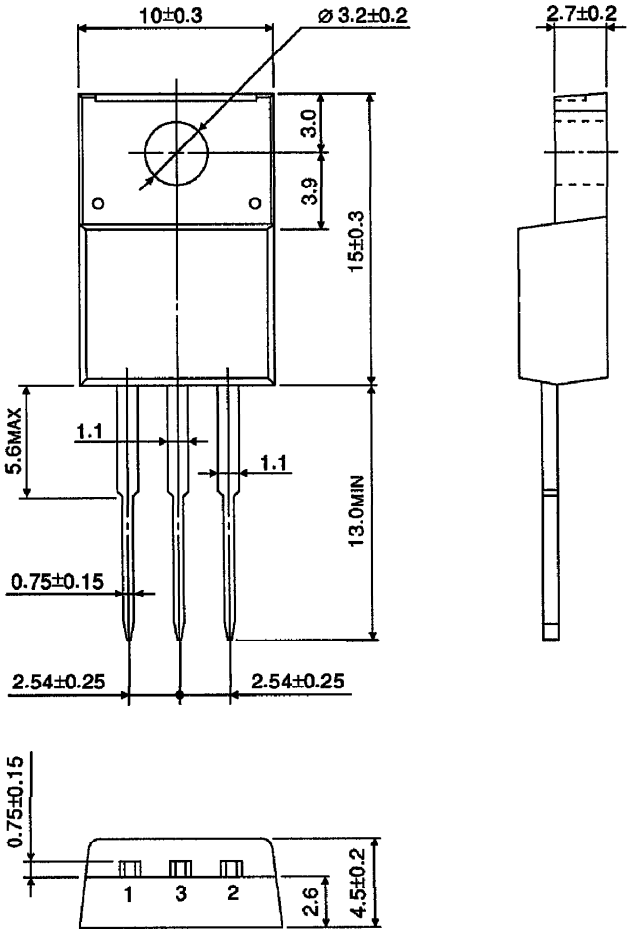
V_D – T_j



PACKAGE DIMENSIONS

P-HSIP3-2.54A

Unit : mm



Weight : 1.7 g (Typ.)