TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA7256P

DUAL POWER OPERATIONAL AMPLIFIER

The TA7256P is a dual power operational amplifier. It is intended for use especially DC MOTOR positioning system applications such as, Arm Driver (for Audiodisk Players), head or voice coil motor drivers (for Floppy and Winchester Disk Drivers) and any other power driver applications.

FEATURES

- HSIP 10Pin Power Package Capsealed.
- Build-in Over Current Protector.
- Few External Parts Required.
- Output Current Up to 1.0A (PEAK) .

BLOCK DIAGRAM



Weight : 2.47g (Typ.)



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PIN FUNCTION

PIN No.	PIN SYMBOL	FUNCTIONAL DESCRIPTION
1	V _{SENSE1}	AMP.1 output current sensing terminal.
2	VOUT1	AMP.1 output terminal.
3	– V _{IN1}	AMP.1 input terminal (-).
4	+ VIN1	AMP.1 input terminal (+).
5	V _{EE}	Negative-side power supply terminal.
6	+ V _{IN2}	AMP.2 input terminal (+).
7	– V _{IN2}	AMP.2 input terminal (-).
8	VOUT2	AMP.2 output terminal.
9	V _{SENSE2}	AMP.2 output current sensing terminal.
10	Vcc	Possitive-side power supply terminal.

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC} , V _{EE}	± 18	V
Output Current	^I O (AVE.)	0.5	A
Power Dissipation	P _D (Note)	12.5	W
Operating Temperature	T _{opr}	- 30~75	°C
Storage Temperature	T _{stg}	- 55~150	°C

(Note) $Tc = 25^{\circ}C$

ELECTRICAL CHARACTERISTICS (Unless otherwise specified, $V_{CC} = 15V$, $V_{EE} = -15V$, $Ta = 25^{\circ}C$)

CHARACTERISTIC		SYMBOL	TEST CIR- CUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Quiescent Current		lcc	—	—	—	10	20	mA
Input Off Set Current		^I IO	—	—	—	10	200	nA
Input Bias Current		1	—	_		100	700	nA
Input Off Set Voltage		VIO	—	_	_	2	6	mV
Output Valtage Suring	Upper	Voн		R _L = 33Ω	12	13.0	_	v
Output Voltage Swing	Lower	VOL			- 12	- 13.0		
Open Loop Gain		GVO	—	_	_	100		dB
Input Common Mode Voltage Range		CMR	_	—	± 12	± 14		
Common Mode Rejection Ratio		CMRR	—	_	70	90	_	dB
Supply Voltage Rejection Ratio		SVRR	—		_	50	150	$\mu V / V$
Band Width		fT	—	Open loop	_	1.0	_	MHz
Slew Rate		SR	_	$G_V = 0$, $R_L = 33Ω$ R = 10Ω, C = 0.1μF		0.15		V/µs
Short Circuit Current		Isc	_	$R_{SC} = 2.2\Omega$	_	0.35	_	А
Cross Talk		C _T	_	$R_L = 33\Omega$, $V_{OUT} = 1V_{p-p}$	_	60	_	dB



APPLICATION CIRCUIT 1



(*)
$$I_{SC} = \frac{0.77 \text{ (V)}}{R_{SC} (\Omega)} \text{ (A)}$$

(Note) Utmost care is necessary in the design of the output line, V_{CC} and GND line since IC may be destroyed due to short-circuit between outputs, air contamination fault, or fault by improper grounding.



APPLICATION CIRCUIT 2 (Compact disk player use actuator system)



Weight : 2.47g (Typ.)