

# TA7256P

## DUAL POWER OPERATIONAL AMPLIFIER

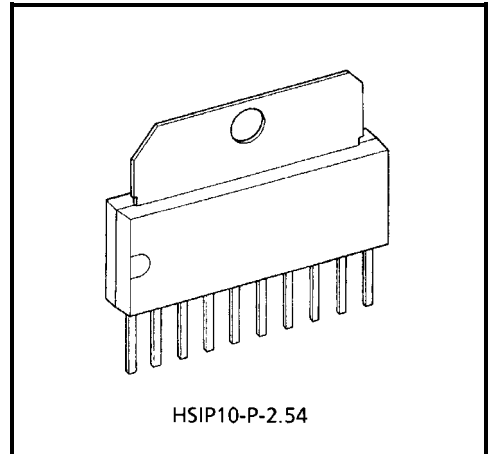
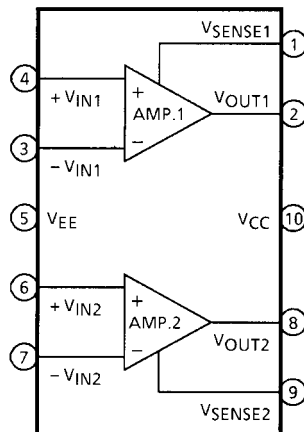
The TA7256P is a dual power operational amplifier.

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 1.0 A (PEAK)

### BLOCK DIAGRAM



Weight: 2.47 g (Typ.)

## PIN FUNCTION

PIN No.	PIN SYMBOL	FUNCTIONAL DESCRIPTION
1	V <sub>SENSE1</sub>	AMP.1 output current sensing terminal.
2	V <sub>OUT1</sub>	AMP.1 output terminal.
3	-V <sub>IN1</sub>	AMP.1 input terminal (-).
4	+V <sub>IN1</sub>	AMP.1 input terminal (+).
5	V <sub>EE</sub>	Negative-side power supply terminal.
6	+V <sub>IN2</sub>	AMP.2 input terminal (+).
7	-V <sub>IN2</sub>	AMP.2 input terminal (-).
8	V <sub>OUT2</sub>	AMP.2 output terminal.
9	V <sub>SENSE2</sub>	AMP.2 output current sensing terminal.
10	V <sub>CC</sub>	Positive-side power supply terminal.

## MAXIMUM RATINGS (Ta = 25°C)

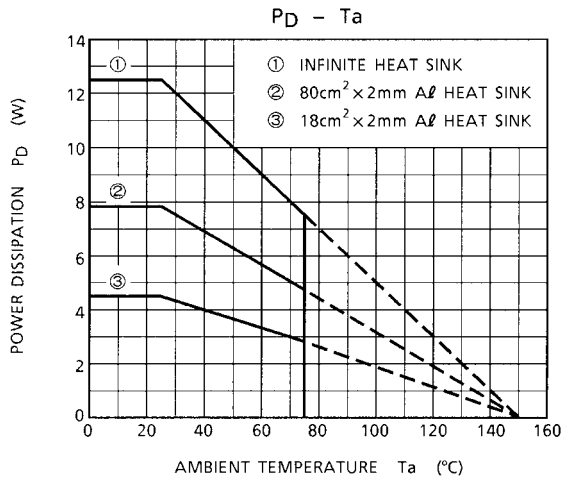
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V <sub>CC</sub> , V <sub>EE</sub>	±18	V
Output Current	I <sub>O</sub> (AVE.)	0.5	A
Power Dissipation	P <sub>D</sub> (Note)	12.5	W
Operating Temperature	T <sub>opr</sub>	-30~75	°C
Storage Temperature	T <sub>stg</sub>	-55~150	°C

Note: T<sub>c</sub> = 25°C

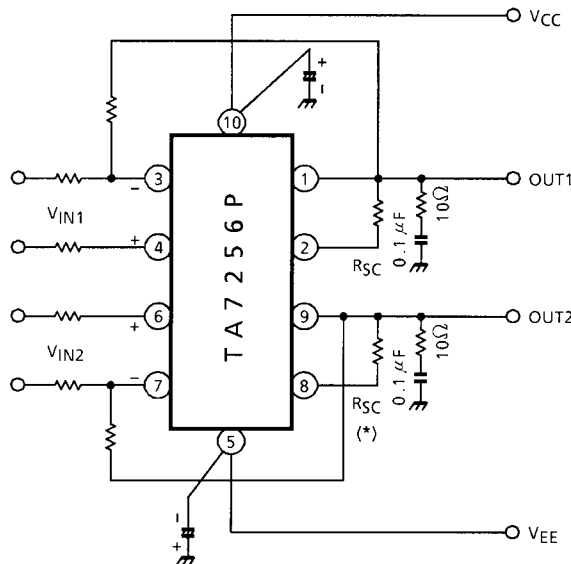
## ELECTRICAL CHARACTERISTICS

(Unless otherwise specified, V<sub>CC</sub> = 15 V, V<sub>EE</sub> = -15 V, Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CIR-CUIT	TEST CONDITION	MIN	TYP.	MAX	UNIT
Quiescent Current	I <sub>CC</sub>	—	—	—	10	20	mA
Input Off Set Current	I <sub>IO</sub>	—	—	—	10	200	nA
Input Bias Current	I <sub>I</sub>	—	—	—	100	700	nA
Input Off Set Voltage	V <sub>IO</sub>	—	—	—	2	6	mV
Output Voltage Swing	Upper	—	R <sub>L</sub> = 33 Ω	12	13.0	—	V
	Lower			V <sub>OH</sub>	V <sub>OL</sub>	-12	
Open Loop Gain	G <sub>VO</sub>	—	—	—	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	μV / V
Band Width	f <sub>T</sub>	—	Open loop	—	1.0	—	MHz
Slew Rate	SR	—	G <sub>V</sub> = 0, R <sub>L</sub> = 33 Ω R = 10 Ω, C = 0.1 μF	—	0.15	—	V / μs
Short Circuit Current	I <sub>SC</sub>	—	R <sub>SC</sub> = 2.2 Ω	—	0.35	—	A
Cross Talk	C <sub>T</sub>	—	R <sub>L</sub> = 33 Ω, V <sub>OUT</sub> = 1 V <sub>P-P</sub>	—	60	—	dB



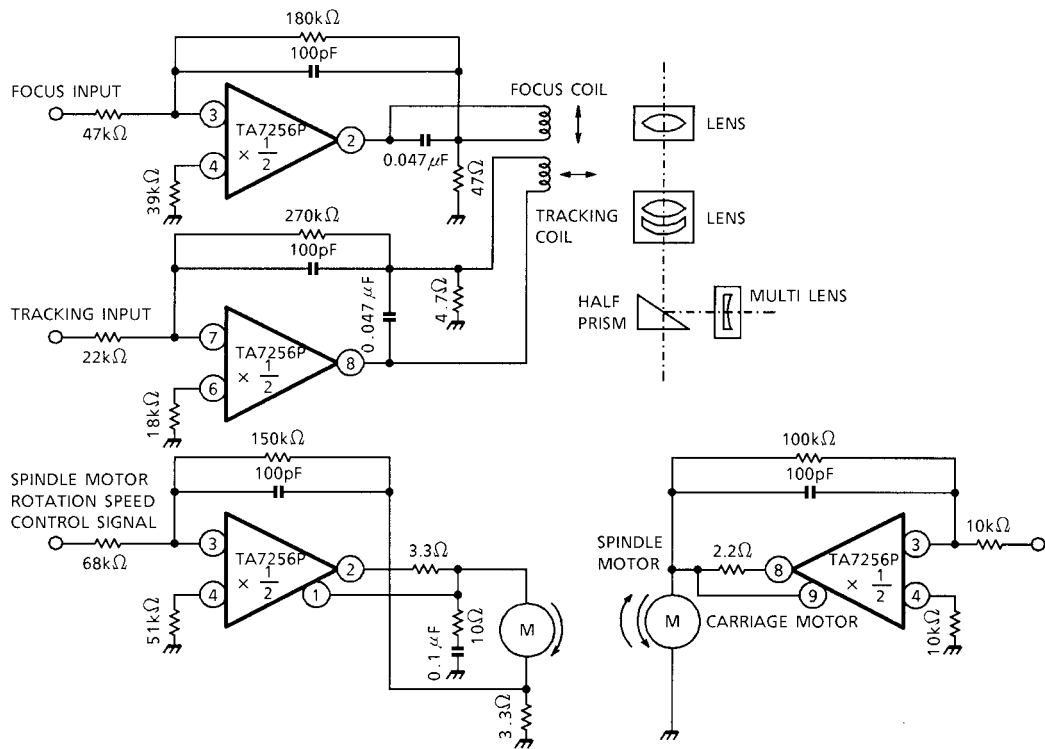
**APPLICATION CIRCUIT 1**



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

Note: Utmost care is necessary in the design of the output line, V<sub>CC</sub> and GND line since IC may be destroyed due to short-circuit between outputs, air contamination fault, or fault by improper grounding.

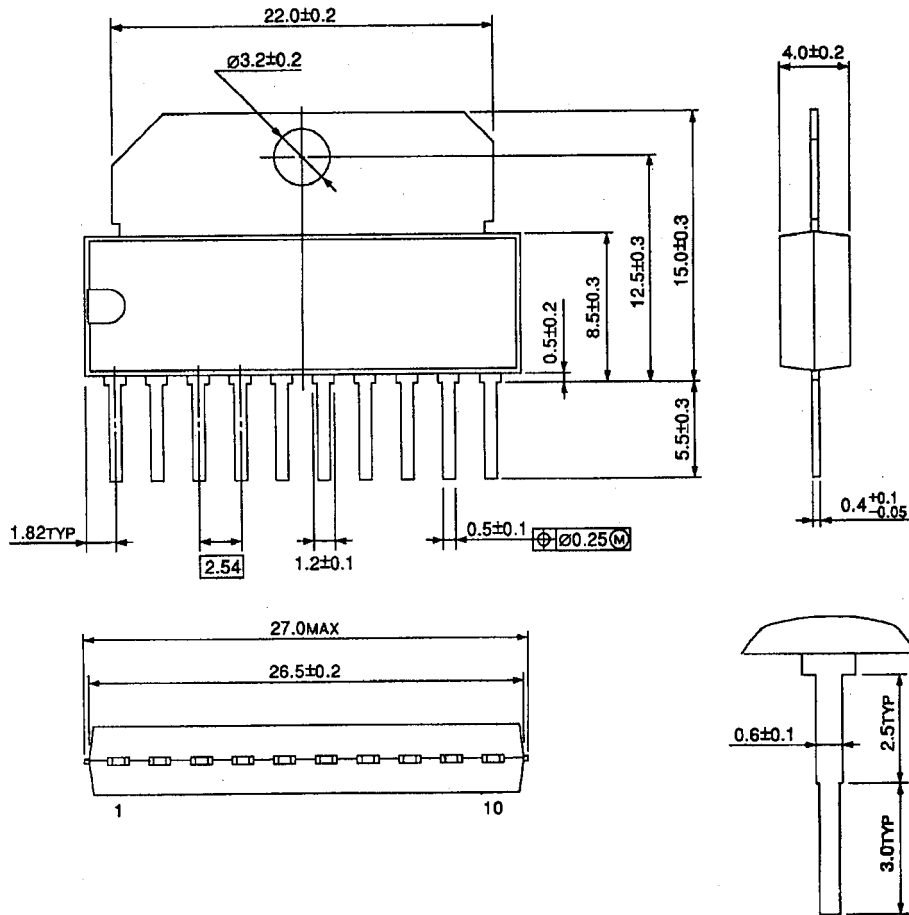
**APPLICATION CIRCUIT 2 (Compact disk player use actuator system)**



## PACKAGE DIMENSIONS

HSIP10-P-2.54

Unit: mm



Weight: 2.47 g (Typ.)

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