

**LA6524****4-output Power Driver****Overview**

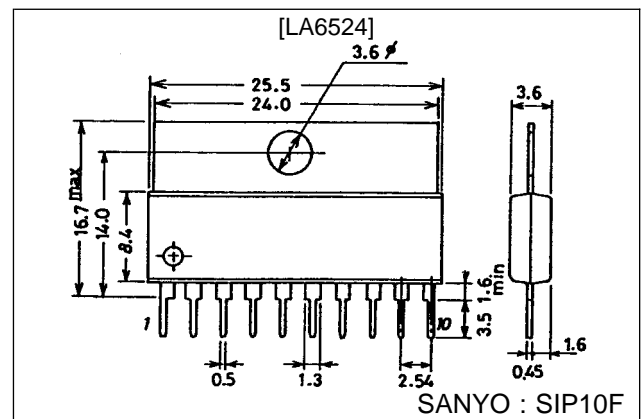
The LA6524 is a 4-output power driver developed for use in consumer and industrial equipment.

**Functions**

- Four buffer amp circuits on chip
- High output current ( $I_o \text{ max} = 0.5 \text{ A}$ )
- Includes current limiter
- Broad operating voltage range ( $\pm 2$  to  $+12 \text{ V}$ )
- Single power supply operation possible (4 to 24 V)
- Thermal shutdown circuit built-in.

**Package Dimensions**

unit : mm

**3046B-SIP10F****Specifications****Maximum Ratings at  $T_a = 25 \text{ }^\circ\text{C}$** 

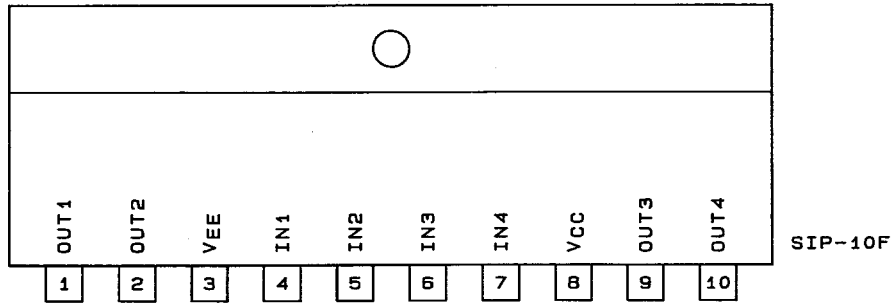
| Parameter                   | Symbol            | Conditions   | Ratings         | Unit             |
|-----------------------------|-------------------|--|-----------------|------------------|
| Maximum supply voltage      | $V_{CC}/V_{EE}$   |  | $\pm 15$        | V                |
| Input voltage               | $V_{IN}$          |  | $\pm 14$        | V                |
| Allowable power dissipation | $P_d \text{ max}$ | When using Al heat sink ( $50 \times 50 \times 1.5 \text{ mm}^3$ ) | 2.0             | W                |
| Operating temperature       | $T_{op}$          |  | $-20$ to $+75$  | $^\circ\text{C}$ |
| Storage temperature         | $T_{stg}$         |  | $-40$ to $+125$ | $^\circ\text{C}$ |

**Operating Characteristics at  $T_a = 25 \text{ }^\circ\text{C}$ ,  $V_{CC}/V_{EE} = \pm 10 \text{ V}$** 

| Parameter                       | Symbol   | Conditions  | min  | typ     | max  | Unit             |
|---------------------------------|----------|---|------|---------|------|------------------|
| Current drain with no load      | $I_{CC}$ |   |      | 10      | 30   | mA               |
| Input offset voltage            | $V_{IO}$ | $R_S \leq 10 \text{ k}\Omega$   |      | 2       | 7    | mV               |
| Input bias current              | $I_B$    |   |      | 50      | 500  | nA               |
| Input voltage range             | $V_{ID}$ |   | $-9$ |         | $+8$ | V                |
| Maximum output voltage          | $V_O$    | $R_L = 33 \text{ }\Omega$   |      | $\pm 8$ |      | V                |
| Slew rate                       | SR       | $R_L = 33 \text{ }\Omega$ , $R_1 = 2.2 \text{ }\Omega$ ,<br>$C_1 = 0.1 \text{ }\mu\text{F}$ |      | 0.15    |      | V/ $\mu\text{s}$ |
| Limiter current (built-in type) | $I_{SC}$ |   |      | 0.5     |      | A                |

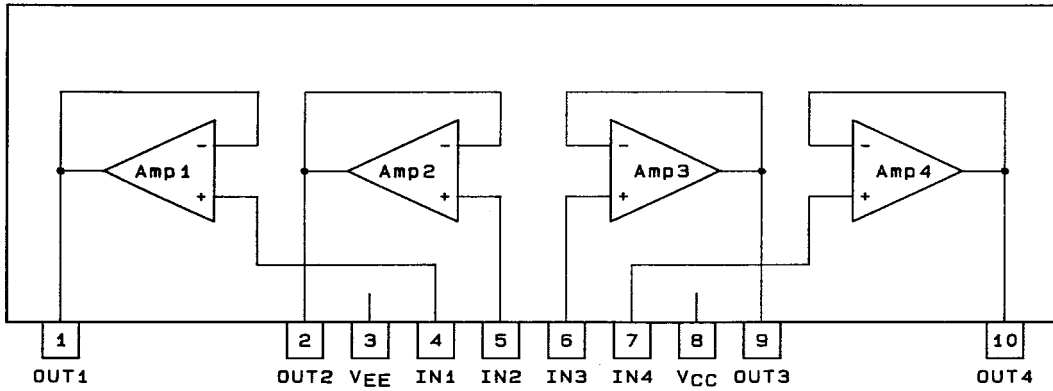
# LA6524

## Pin Assignments



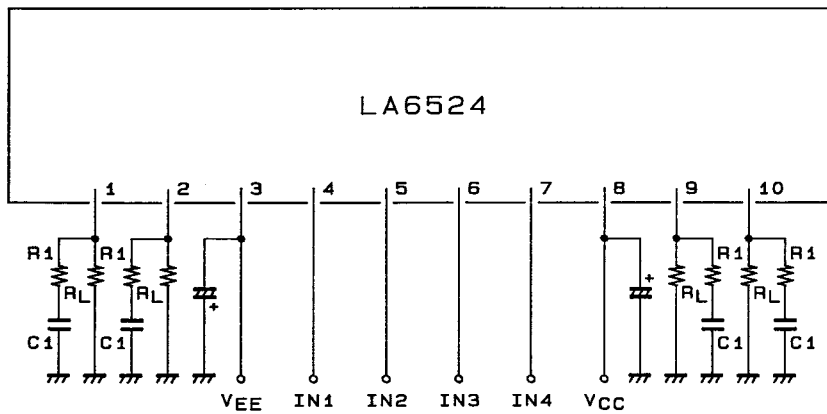
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## Block Diagram



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## Sample Application Circuit

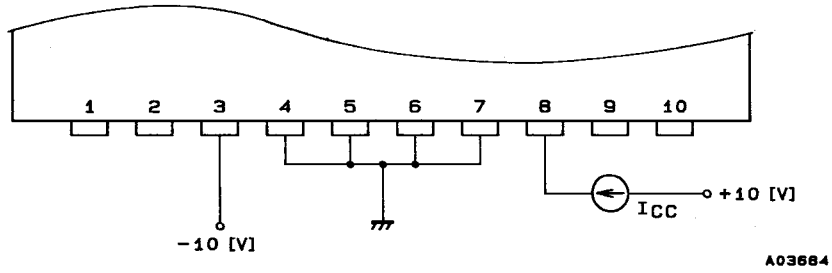


$R_L =$  Load  
 $R_1 = 2.2[\Omega]$   
 $C_1 = 0.1[\mu F]$  (Film)

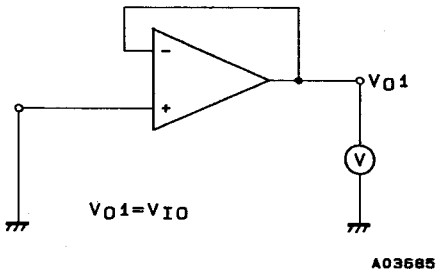
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Test Circuit

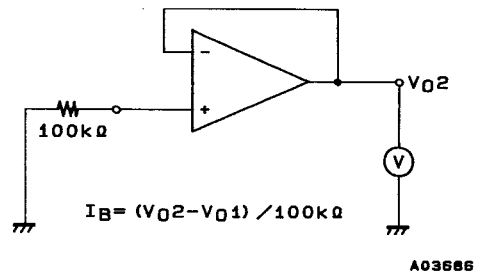
1.  $I_{CC}$



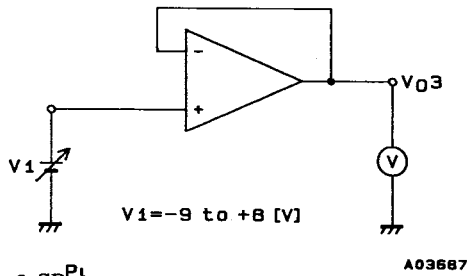
2.  $V_{IO}$



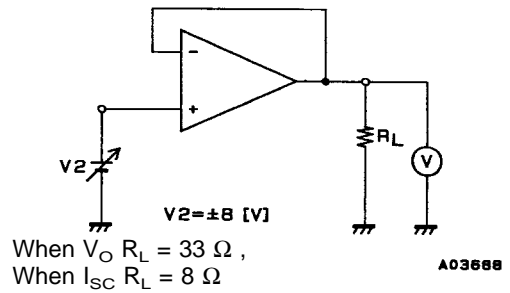
3.  $I_B$



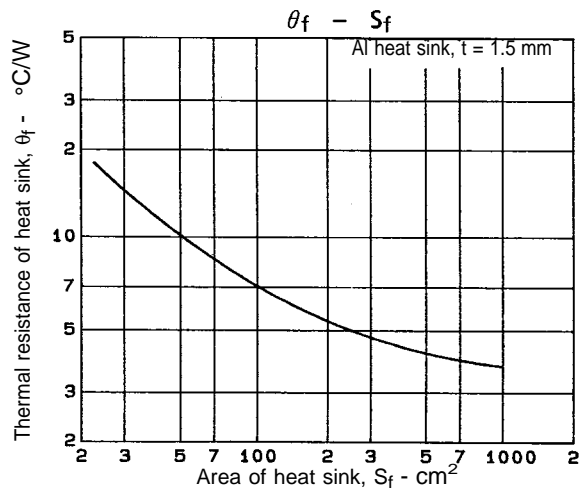
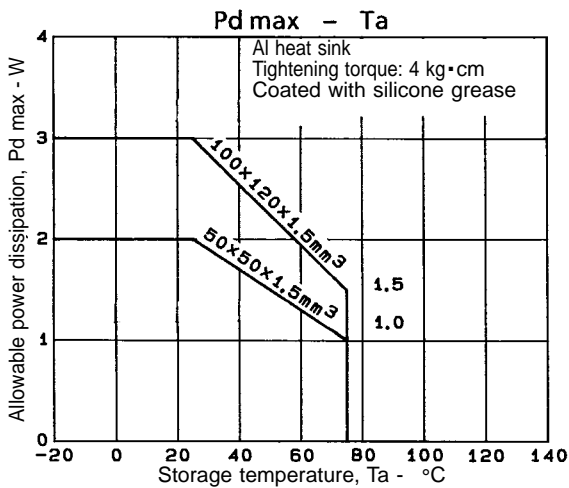
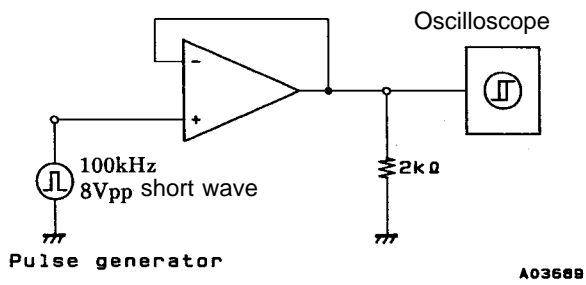
4.  $V_{ID}$



5.  $V_O, I_{SC}$



6.  $SR^{PI}$



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