



# 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 ( $I_o$  max = 0.5 A)
- Includes current limiter
- Broad operating voltage range ( $\pm 2$  to +12 V)
- Single power supply operation possible (4 to 24 V)
- Thermal shutdown circuit built-in.

### Specifications

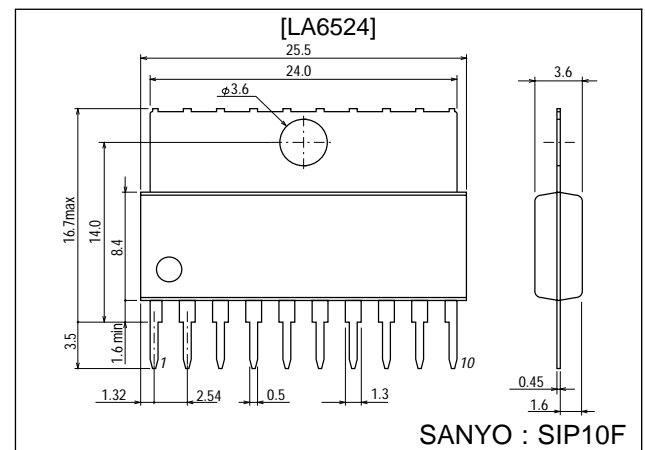
#### Maximum Ratings at $T_a = 25\text{ }^\circ\text{C}$

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	$P_d$ max	When using Al heat sink ( 50 x 50 x 1.5 mm <sup>3</sup> )	2.0	W
Operating temperature	$T_{opr}$		-20 to +75	$^\circ\text{C}$
Storage temperature	$T_{stg}$		-40 to +125	$^\circ\text{C}$

### Package Dimensions

unit : mm

#### 3046B-SIP10F



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

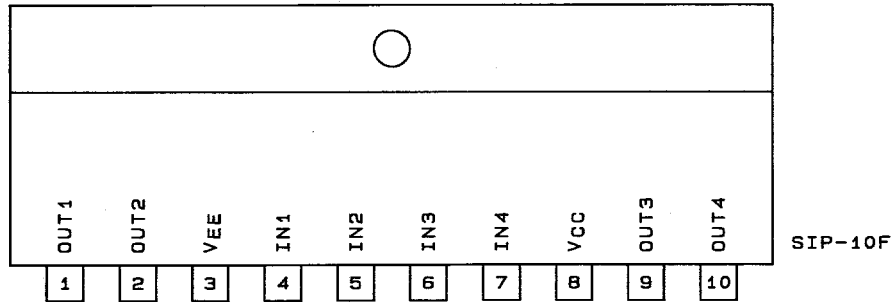
Parameter	Symbol	Conditions	min	typ	max	Unit
Current drain with no load	$I_{CC}$			10	30	mA
Input offset voltage	$V_{IO}$	$R_S \leq 10\text{ k}\Omega$		2	7	mV
Input bias current	$I_B$			50	500	nA
Input voltage range	$V_{ID}$		-9		+8	V
Maximum output voltage	$V_O$	$R_L = 33\ \Omega$		$\pm 8$		V
Slew rate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

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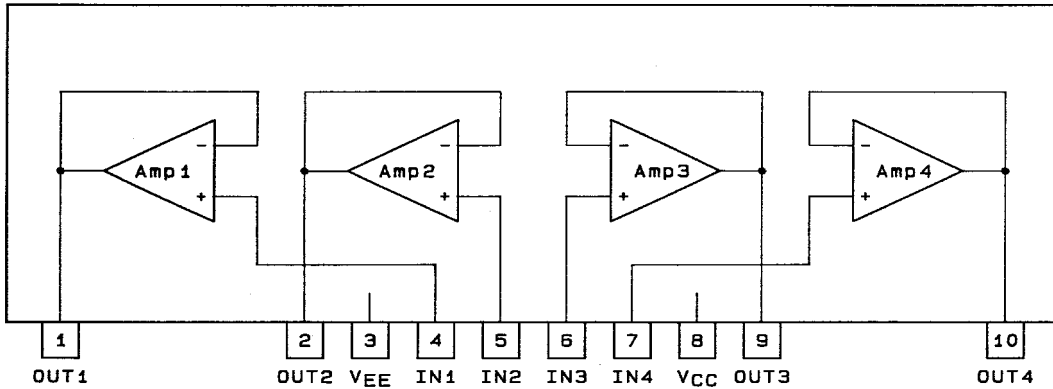
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## Pin Assignment



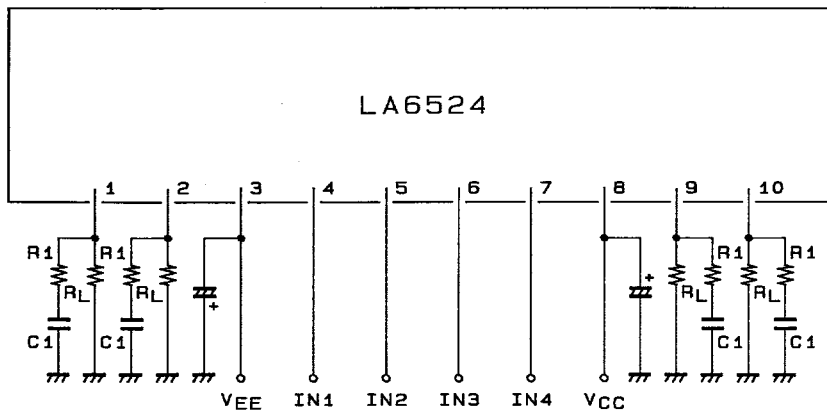
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## Block Diagram



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## Sample Application Circuit

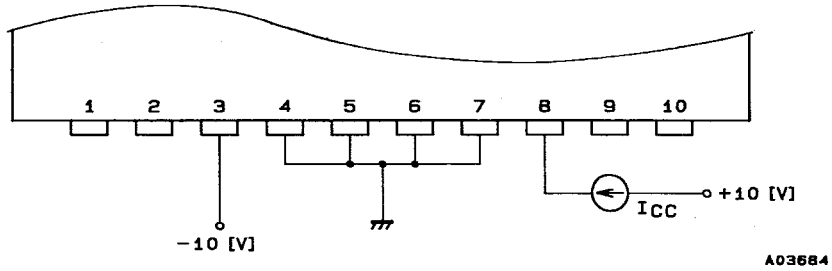


$R_L = \text{Load}$   
 $R_1 = 2.2[\Omega]$   
 $C_1 = 0.1[\mu\text{F}] \text{ (Film)}$

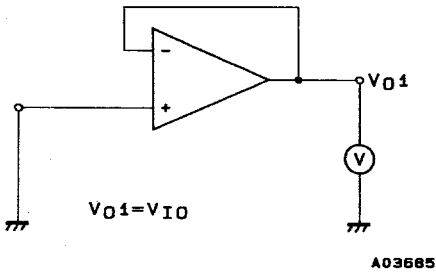
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Test Circuit

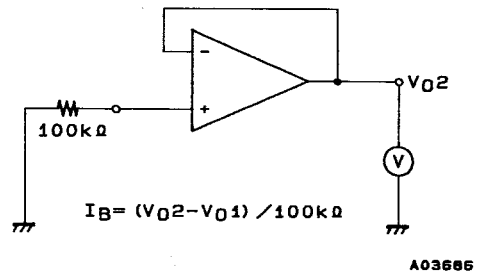
1.  $I_{CC}$



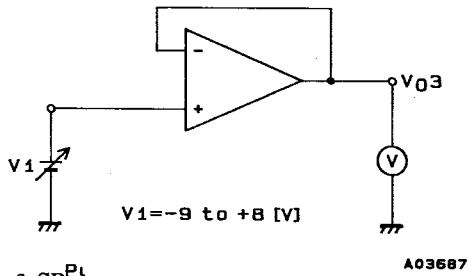
2.  $V_{IO}$



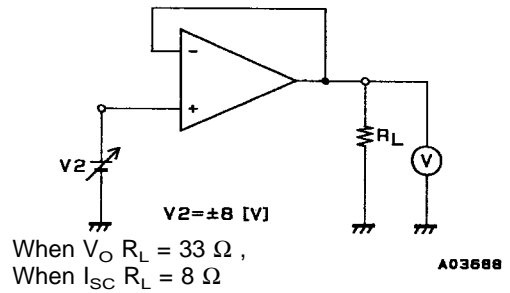
3.  $I_B$



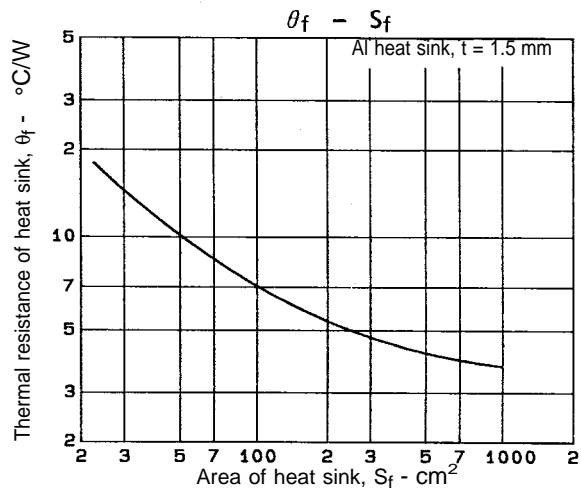
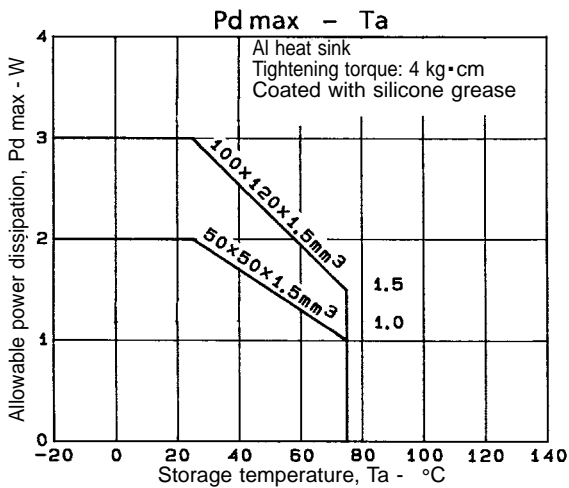
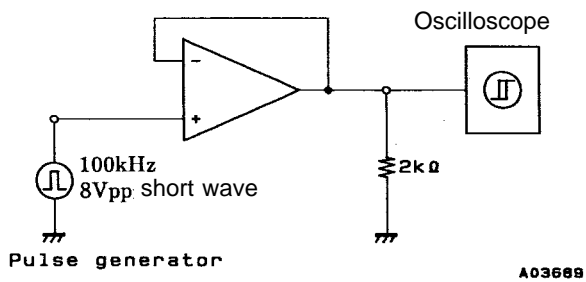
4.  $V_{ID}$



5.  $V_O, I_{SC}$



6.  $SR^{PI}$



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