



# LA6510

## 1A Power Operational Amplifier

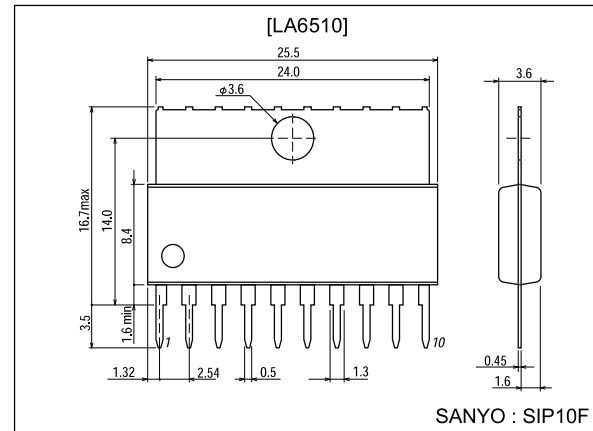
### Features

- High output current ( $I_O \text{ max}=1.0\text{A}$ ).
- High gain.
- Equipped with current limiter pin (Adjustable by external settings).
- Supports single power source operation.

### Package Dimensions

unit:mm

3046B-SIP10F



### Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC}/V_{EE} \text{ max}$		$\pm 18$	V
Differential input voltage	$V_{ID}$		30	V
Common mode input voltage	$V_{ICOM}$		$\pm 15$	V
Maximum output current	$I_O \text{ max}$		1.0	A
Allowable power dissipation	$P_d \text{ max}$		2.5	W
Operating temperature	$T_{opr}$		$-20 \text{ to } +75$	$^\circ\text{C}$
Storage temperature	$T_{stg}$		$-55 \text{ to } +150$	$^\circ\text{C}$

**Operating Characteristics** at  $T_a = 25^\circ\text{C}$ ,  $V_{CC}/V_{EE} = \pm 15\text{V}$ 

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
No-load current drain	$I_{CCO}$			12	20	mA
Input offset voltage	$V_{IO}$	$R_G \leq 10\text{k}\Omega$		2	6	mV
Input offset current	$I_{IO}$			10	200	nA
Input bias current	$I_B$			100	700	nA
Common mode input voltage range	$V_{ICM}$		-15		+13	V
Common mode signal rejection ratio	$C_{RM}$		70	80		dB
Maximum output voltage	$V_O \text{ max}$	$R_L = 33\Omega$	$\pm 12$	$\pm 13$		V
Voltage gain	$V_{GO}$			100		dB

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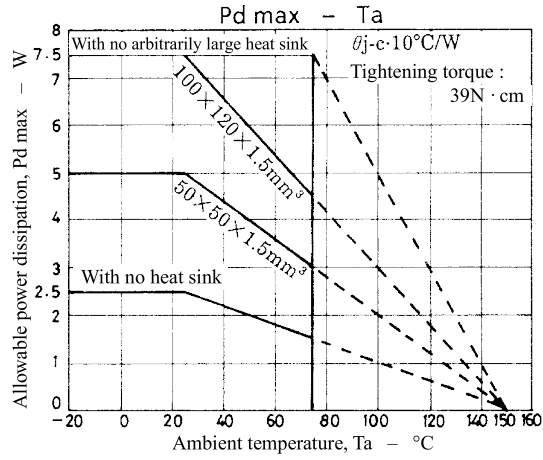
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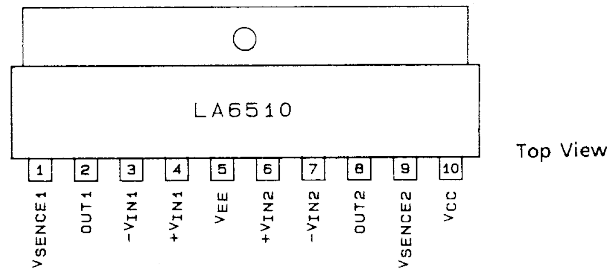
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Slew rate	SR	$G_V=0, R_L=33\Omega, R=2.2\Omega, C=0.1\mu F$		0.15		V/ $\mu s$
Equivalent input noise voltage	$V_{NI}$	$R_g=1k\Omega, \text{DIN AUDIO}$		2		$\mu V$
Supply voltage rejection ratio	SVRR			30	150	$\mu V/V$
Limiting current	$I_{SC}$	$R_{SC}=2.2\Omega$		0.35		A

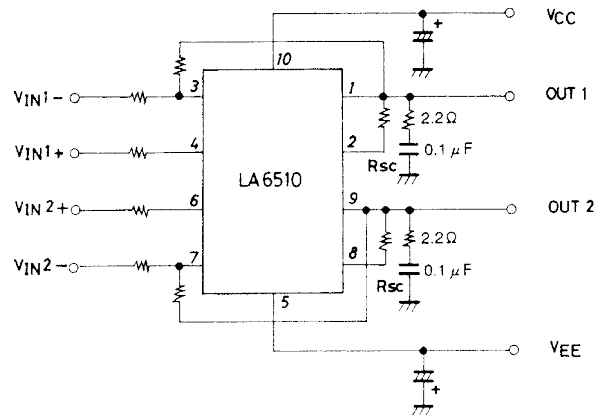


## Pin Assignment



AD0006

## Sample Application Circuit



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