



LA6501

Power Operational Amplifier

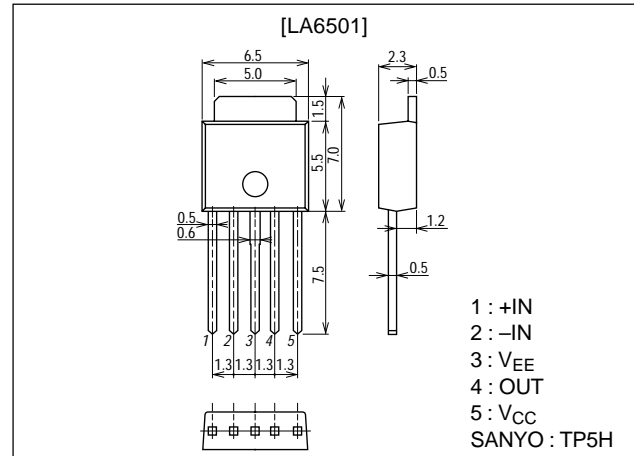
Features

- High output current ($I_O \text{ max}=1.0\text{A}$).
- High gain.
- With current limiter.
- Capable of being operated from single supply.

Package Dimensions

unit:mm

3103



Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	V_{CC}/V_{EE}		± 18	V
Differential input voltage	V_{IDif}		30	V
Common-mode input voltage	V_{ICOM}		± 14	V
Output current	$I_O \text{ max}$		1.0	A
Allowable power dissipation	$P_d \text{ max}$		1	W
Operating temperature	T_{opr}		-20 to $+75$	$^\circ\text{C}$
Storage temperature	T_{stg}		-55 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	
Quiescent current drain	I_{CCO}			6		mA
Input offset voltage	V_{IO}	$R_S \leq 10\text{k}\Omega$		2		mV
Input offset current	I_{IO}			10		nA
Input bias current	I_B			100		nA
Common-mode input voltage range	V_{ICM}		-15		$+13$	V
Common-mode rejection	CMR			80		dB
Maximum output voltage	V_o	$R_L = 33\Omega$		± 13		V
Voltage gain	V_{GO}			100		dB
Slew rate	SR	$GV=0$, $R_L=33\Omega$, $R=10\Omega$, $L=0.1\mu\text{F}$		0.15		V/ μs

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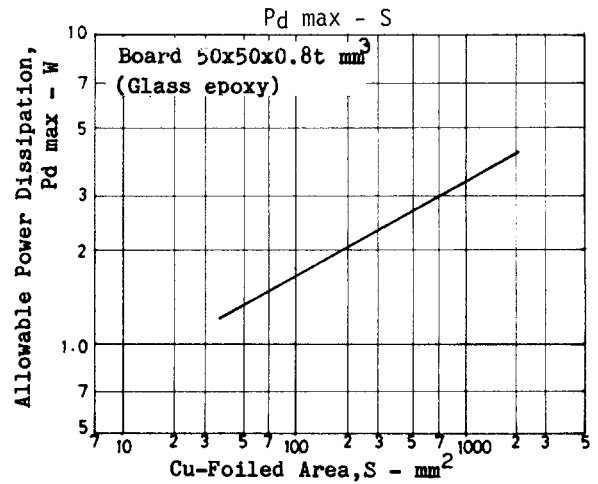
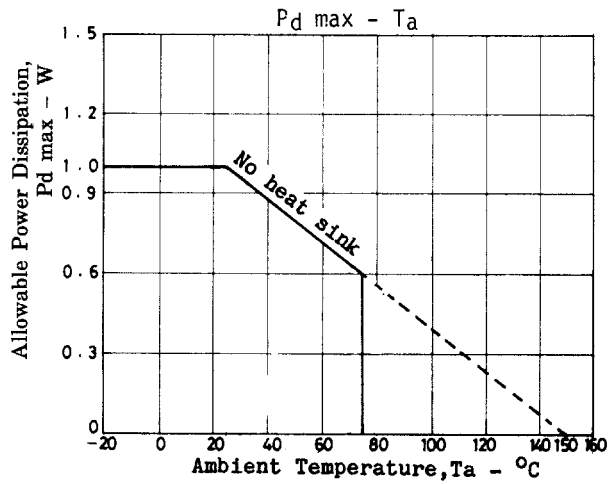
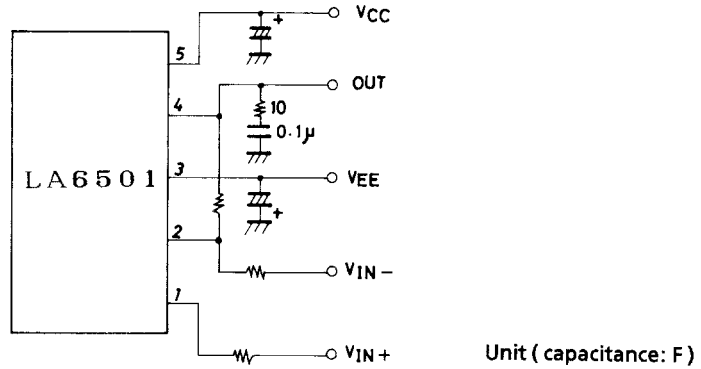
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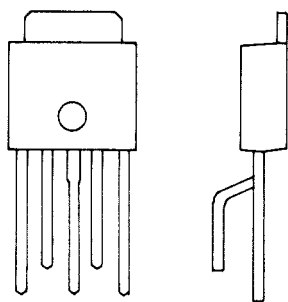
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Equivalent input noise voltage	V_{NI}	$R_g=1k\Omega$, DIN Audio		2		μV
Supply voltage rejection	SVR			30		$\mu V/V$
Limiting current	I_{sc}			1.00		A

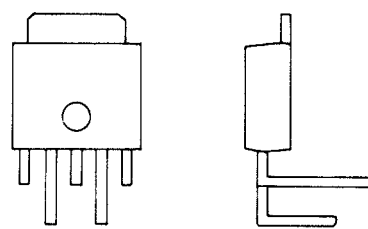
Sample Application Circuit



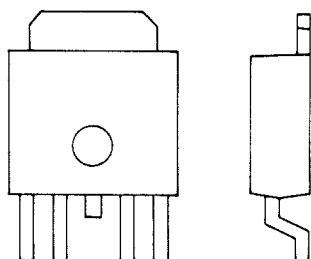
Lead Formings



MA forming



LR forming



FA forming

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