Ordering number: EN 4089

Monolithic Linear IC

LA6511

Power Operational Amplifier

Overview

The LA6511 is a BLT-dedicated 1-channel driver developed for use in consumer and industrial equipment. (Do not use with ± power supply)

Features and Functions

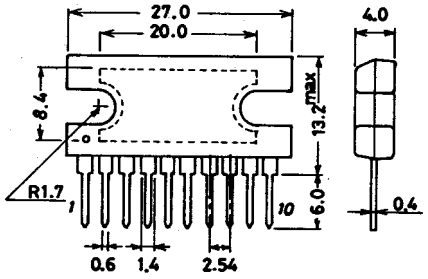
- High output current (I_O max = 2.0 A)
- High gain
- Wide operating voltage range (4 to 24 V)
- Includes mute circuit (active low)

Package Dimensions

unit : mm

3024A-SIP10H

[LA6511]



SANYO : SIP10H

Specifications

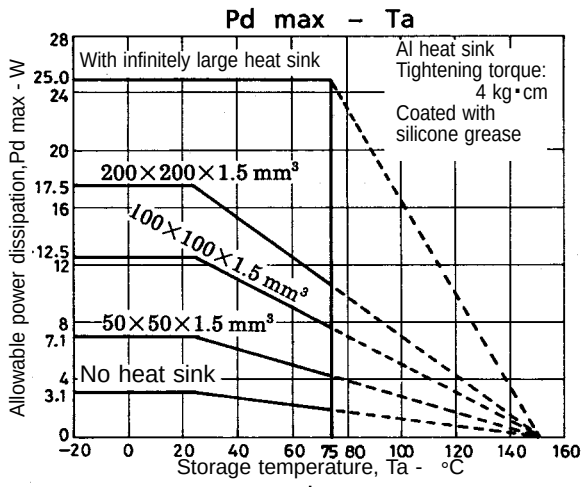
Maximum Ratings at Ta = 25 °C

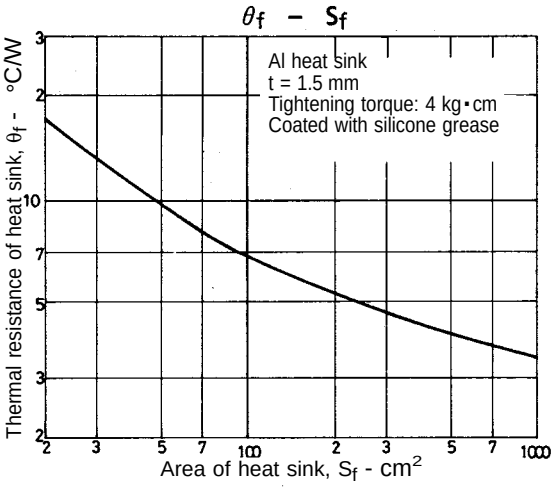
Parameter	Symbol	Ratings	Unit
Maximum supply voltage	V_{CC}max	24	V
Differential input voltage	V_{ID}	24	V
Input common-mode voltage range	V_{IN}	24	V
Allowable power dissipation	Pd max	3.1	W
Operating temperature	Topr	–20 to +75	°C
Storage temperature	Tstg	–55 to +150	°C

Operating Characteristics at Ta = 25 °C, V_{CC} = 12V

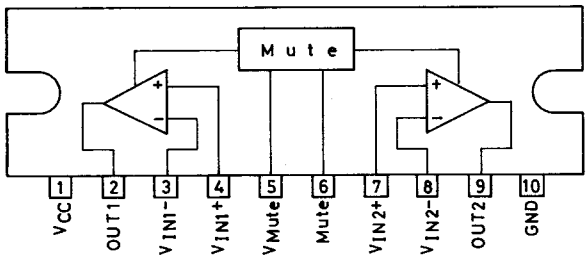
Parameter	Symbol	Conditions	min	typ	max	Unit
Current drain with no load	I_{CC}		17	25	35	mA
Input offset voltage	V_{IO}	$R_S \leqq 10$ kΩ		3	7	mV
Input offset voltage difference	DV_{IO}	$R_S \leqq 10$ kΩ		1	3	mV
Input offset current	I_{IO}			10	100	nA
Input bias current	I_B			50	500	nA
Input common-mode voltage range	V_{ICM}		0.5		10	V
Common-mode signal rejection ratio	CMR		70	80		dB
Maximum output voltage	V_O	R_L = 8.0 Ω		8		V
Voltage gain	VG_O			85		dB
Slew rate	SR			0.15		V/μs
Supply voltage rejection ratio	SVR			30		μV/V
Mute-off voltage	V_{MOFF}			1.0		V
Mute pin output current	I_{MUTE}			40		μA

Notes)
- Thermal shutdown function on chip.
- The mute voltage operates versus the $V_M$ref voltage.

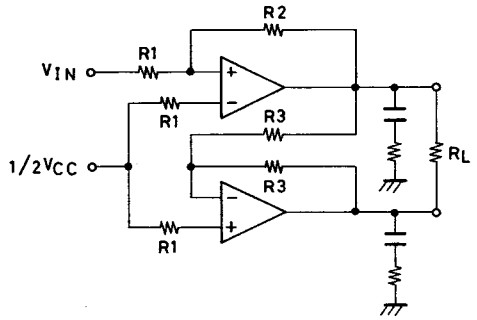




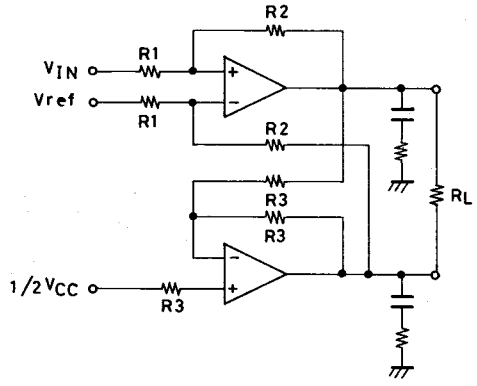
Pin Assignment



Sample Application Circuit



$$\text{Gain} = 20\log\frac{R2}{R1} + 6\text{dB}$$



$$\text{Gain} = 20\log\frac{R2}{R1} + 6\text{dB}$$

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