

LA6540M

4-output Power Operational Amplifier

Overview

The LA6540M is a 4-output power operational amplifier developed for use in consumer and industrial equipment.

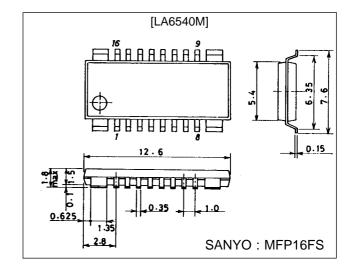
Functions

- High output current ($I_O \max = 0.7 \text{ A} : \text{typ}$)
- · Includes a current limiter
- Wide operating voltage range (±2 to ±16 V)
- Single-supply operation possible (4 to 32 V)
- · Thermal shutdown built in

Package Dimensions

unit: mm

3097-MFP16FS



Specifications

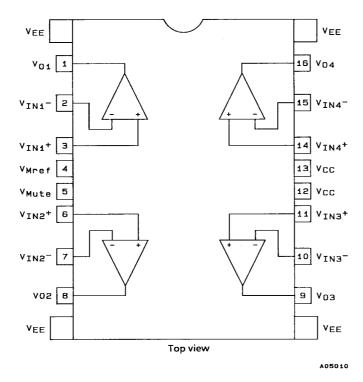
Maximum Ratings at $Ta = 25 \,^{\circ}C$

Parameter	Symbol	Conditions	Ratings	Unit	
Maximum supply voltage	V _{CC} /V _{EE}		±18	V	
Input voltage	V _{IN}		±17	V	
Allowable power dissipation	Pd max		0.7	W	
Operating temperature	Topr		-20 to +75	°C	
Storage temperature	Tstg		-40 to +150	°C	

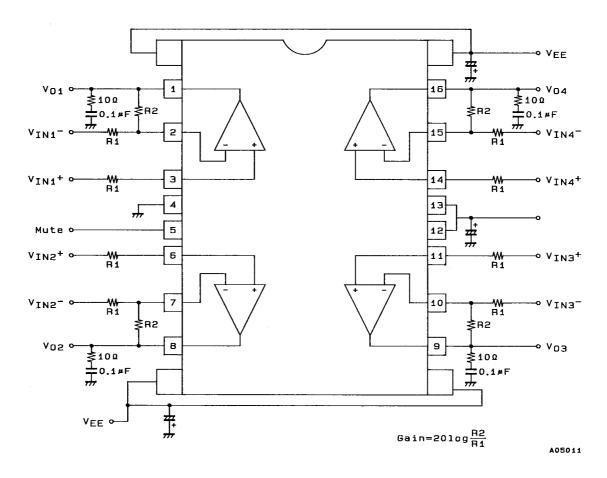
Operation Characteristics at Ta = 25 °C, $V_{\rm CC}$ = +15 V, $V_{\rm EE}$ = -15 V

Parameter	Symbol	Conditions	min	typ	max	Unit
No-load current drain	Icc	Mute OFF		15	30	mA
Input offset voltage	V _{IO}	$R_S \le 10 \text{ k}\Omega$		2	7	mV
Input offset current	I _{IO}			10	100	nA
Input bias current	I_{B}			50	300	nA
Input common-mode voltage	V _{ID}		-14		+13	V
range						
Common-mode signal rejection ratio	CMRR		60	75		dB
Maximum output voltage	Vo	$R_1 = 33 \Omega$	±11	±12		V
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Slew rate	SR	$R_L = 33 \Omega$, $R1 = 2.2 \Omega$, $C1 = 0.1 \mu F$		0.15		V/µs
Limiting current (built in)	I _{SC}		0.5	0.7		Α

Pin Assignment

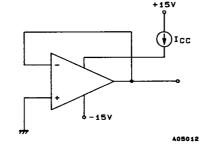


Sample Application Circuit

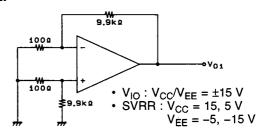


Test Circuits

 I_{CC}

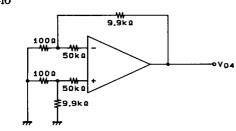


 V_{IO} , SVRR



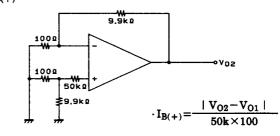
A05013

 I_{IO}



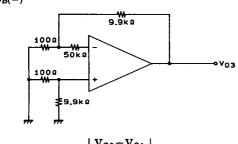
$$\cdot I_{IO} = \frac{\mid V_{O4} - V_{O1} \mid}{50k \times 100}$$

 $I_{B(+)}$



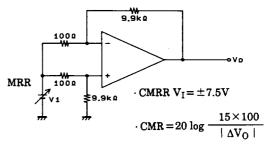
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 $I_{B(-)}$

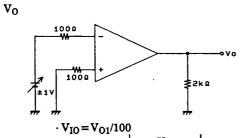


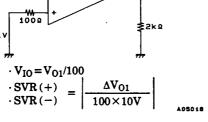
$$\cdot I_{B(-)} = \frac{\mid V_{O3} - V_{O1} \mid}{50k \times 100}$$

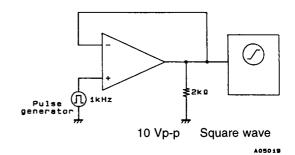
CMRR, VICM

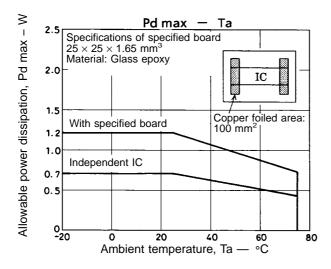


SR









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