

**SANYO****LA6540M****4-output Power Operational Amplifier****Overview**

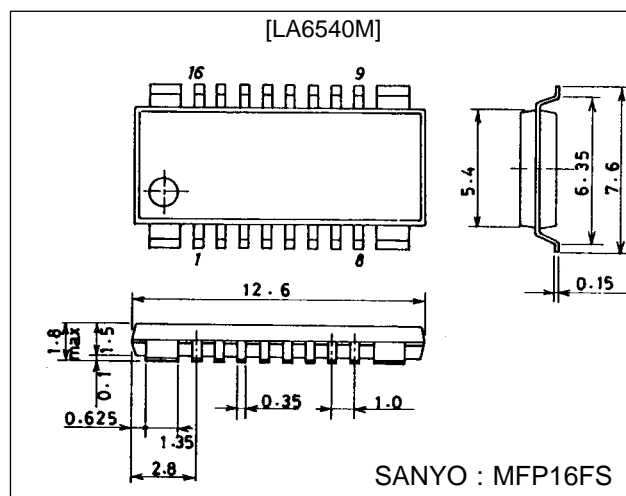
The LA6540M is a 4-output power operational amplifier developed for use in consumer and industrial equipment.

**Functions**

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

**Package Dimensions**

unit : mm

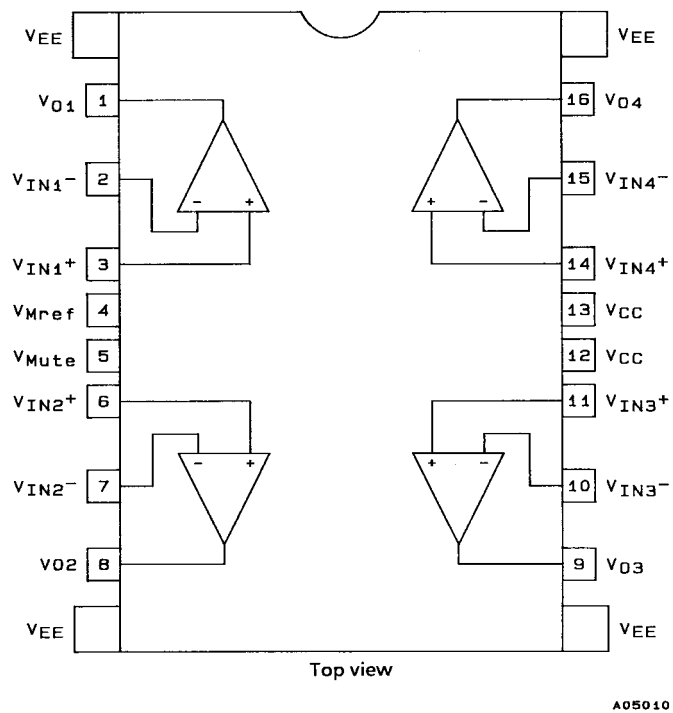
**3097-MFP16FS****Specifications****Maximum Ratings at  $T_a = 25^\circ\text{C}$** 

Parameter	Symbol	Conditions	Ratings	Unit
Maximum supply voltage	$V_{CC}/V_{EE}$		$\pm 18$	V
Input voltage	$V_{IN}$		$\pm 17$	V
Allowable power dissipation	$P_{d\text{ max}}$		0.7	W
Operating temperature	$T_{opr}$		$-20$ to $+75$	$^\circ\text{C}$
Storage temperature	$T_{stg}$		$-40$ to $+150$	$^\circ\text{C}$

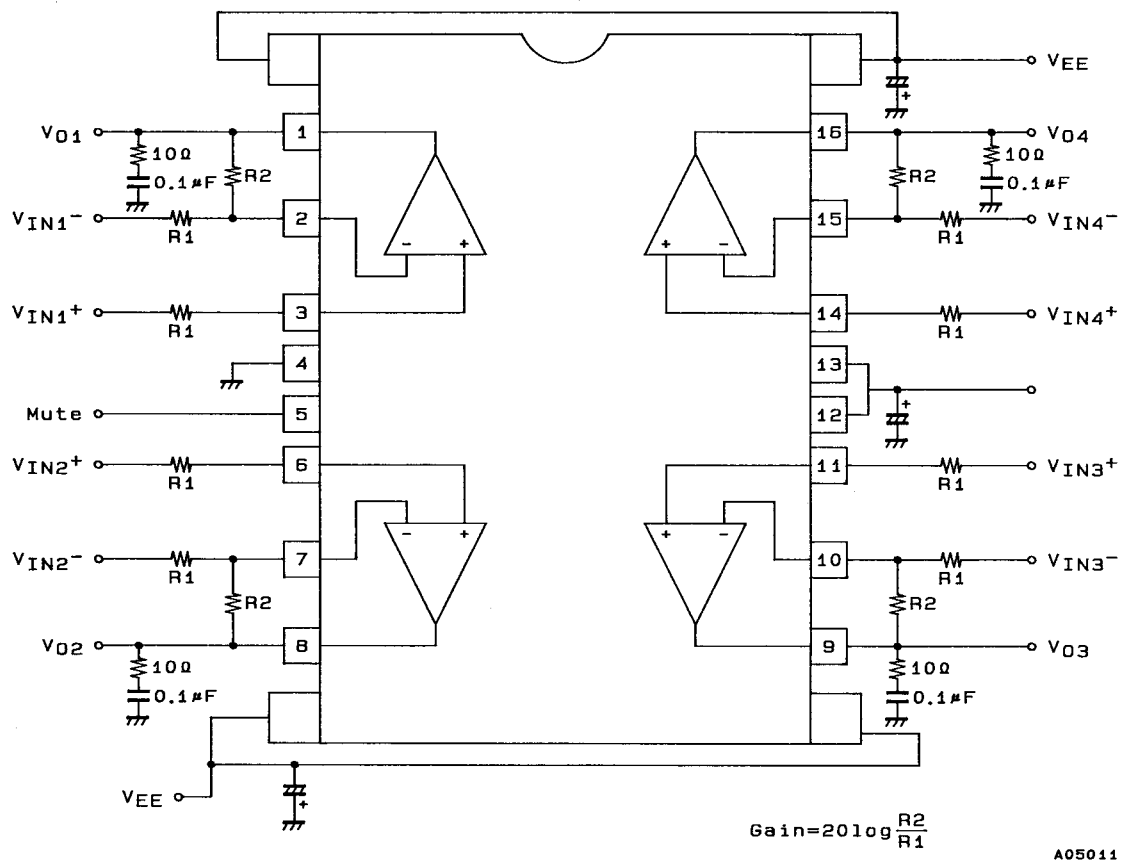
**Operation Characteristics at  $T_a = 25^\circ\text{C}$ ,  $V_{CC} = +15\text{ V}$ ,  $V_{EE} = -15\text{ V}$** 

Parameter	Symbol	Conditions	min	typ	max	Unit
No-load current drain	$I_{CC}$	Mute OFF		15	30	mA
Input offset voltage	$V_{IO}$	$R_S \leq 10\text{ k}\Omega$		2	7	mV
Input offset current	$I_{IO}$			10	100	nA
Input bias current	$I_B$			50	300	nA
Input common-mode voltage range	$V_{ID}$		$-14$		$+13$	V
Common-mode signal rejection ratio	CMRR		60	75		dB
Maximum output voltage	$V_O$	$R_L = 33\text{ }\Omega$	$\pm 11$	$\pm 12$		V
Slew rate	SR	$R_L = 33\text{ }\Omega$ , $R_1 = 2.2\text{ }\Omega$ , $C_1 = 0.1\text{ }\mu\text{F}$		0.15		V/ $\mu\text{s}$
Limiting current (built in)	$I_{SC}$		0.5	0.7		A

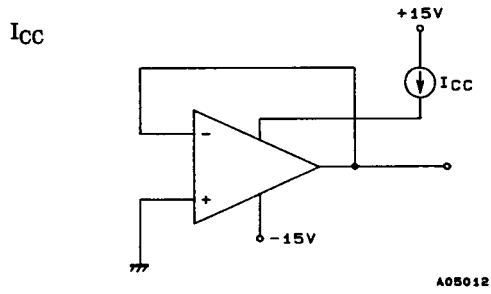
## Pin Assignment



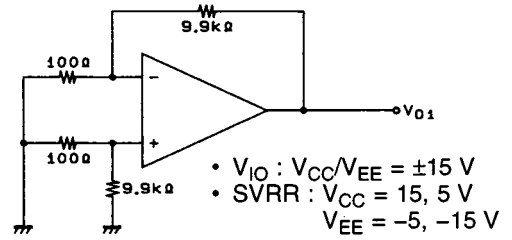
## Sample Application Circuit



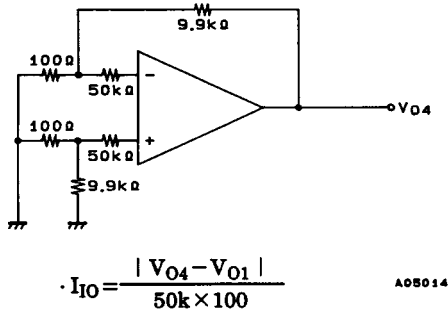
Test Circuits



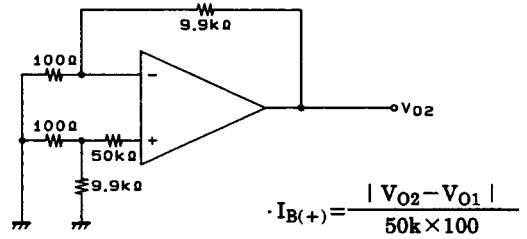
$V_{IO}, SVRR$



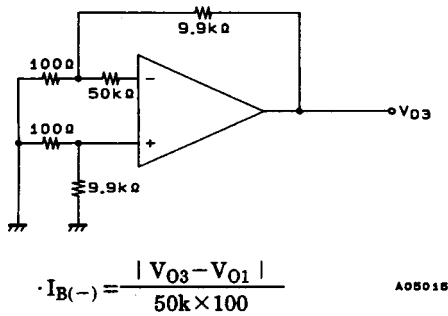
$I_{IO}$



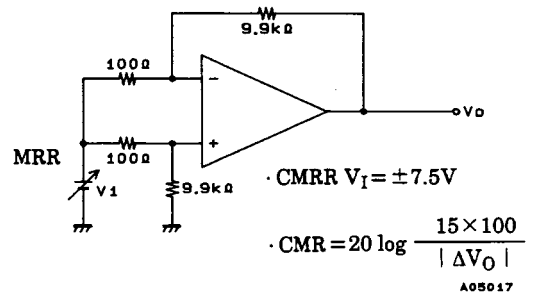
$I_{B(+)}$



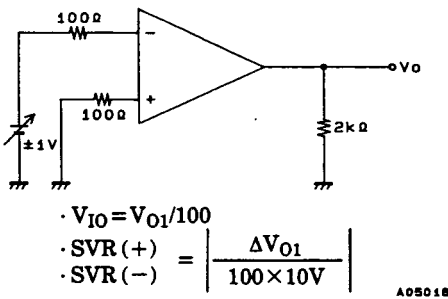
$I_{B(-)}$



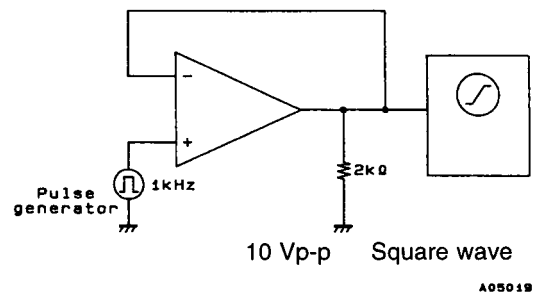
CMRR,  $V_{ICM}$

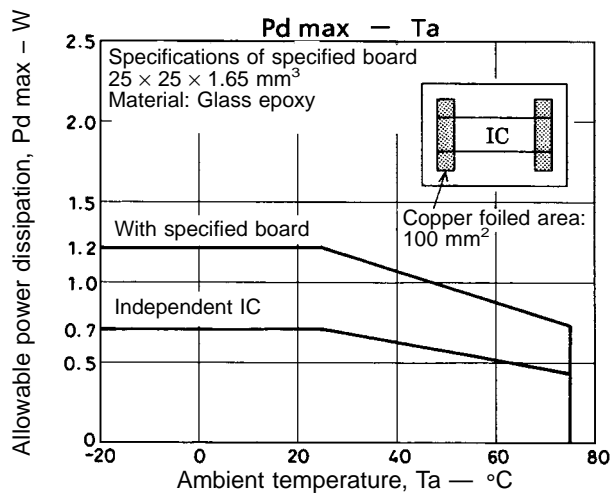


$V_O$



SR





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