

Monolithic Linear IC

LA6540M

SANYO

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 (± 2 to ± 16 V)
- Single-supply operation possible (4 to 32 V)
- Thermal shutdown built in

Specifications

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

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

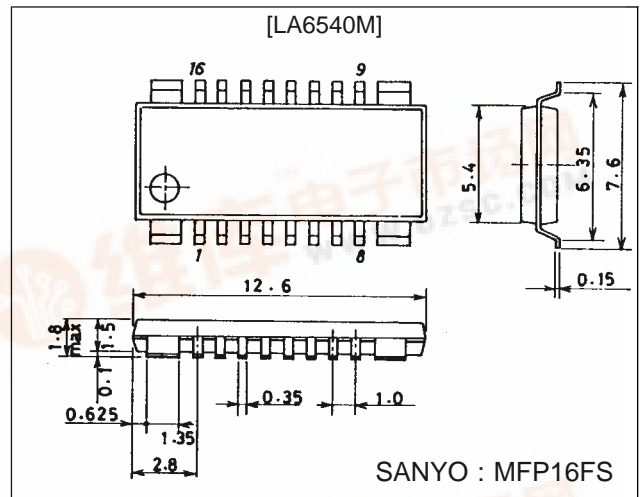
Operation Characteristics at $T_a = 25^\circ\text{C}$, $V_{CC} = +15\text{ V}$, $V_{EE} = -15\text{ V}$

| 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 | $R_L = 33\ \Omega$ | ± 11 | ± 12 | | V |
| Slew rate | SR | $R_L = 33\ \Omega$, $R_1 = 2.2\ \Omega$, $C_1 = 0.1\ \mu\text{F}$ | | 0.15 | | V/ μs |
| Limiting current (built in) | I_{SC} | | 0.5 | 0.7 | | A |

Package Dimensions

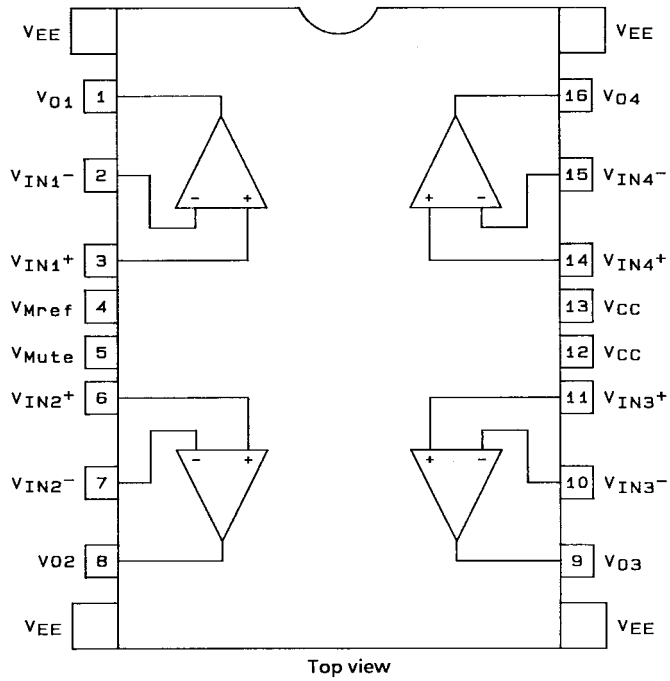
unit : mm

3097-MFP16FS



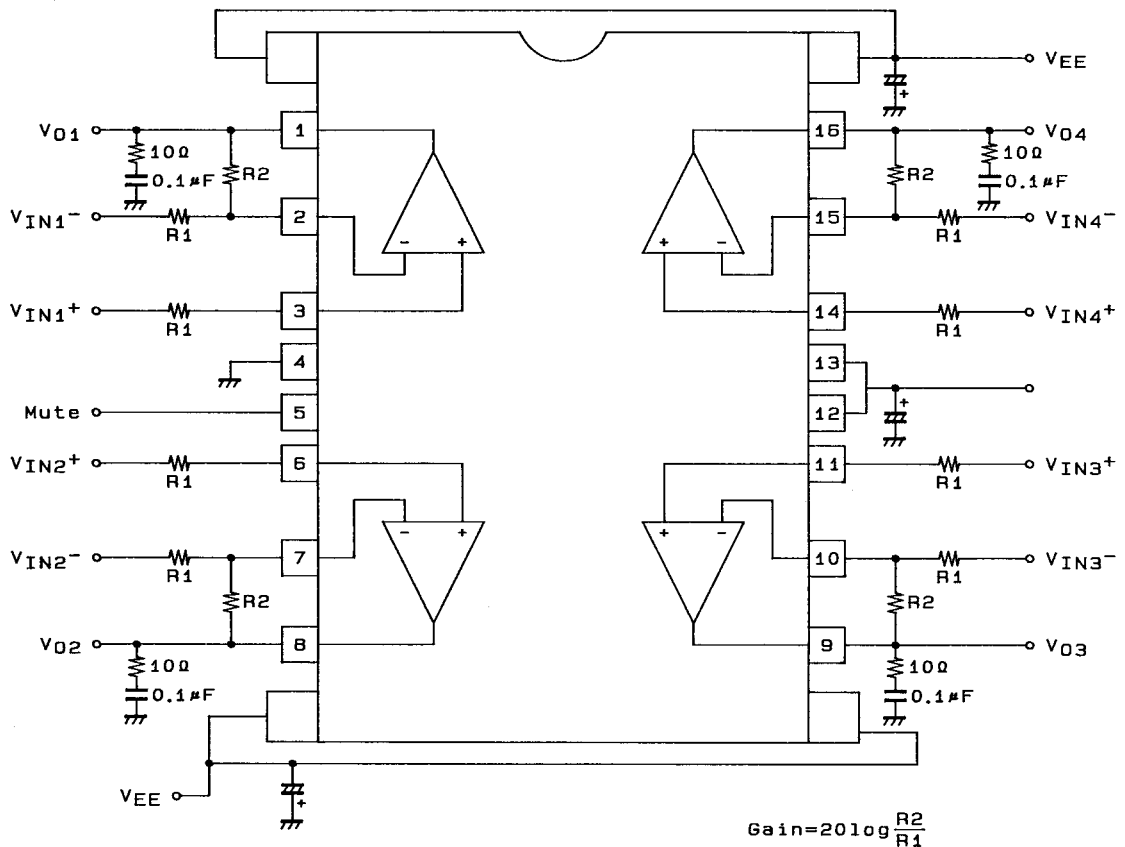
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Pin Assignment



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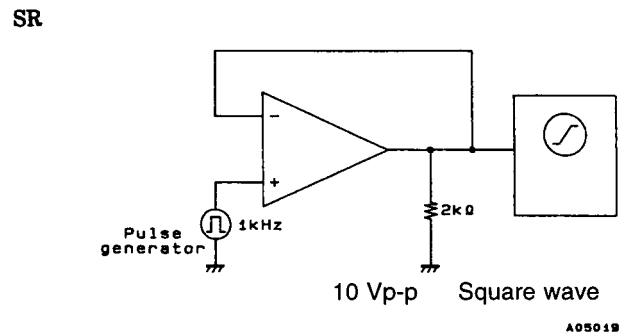
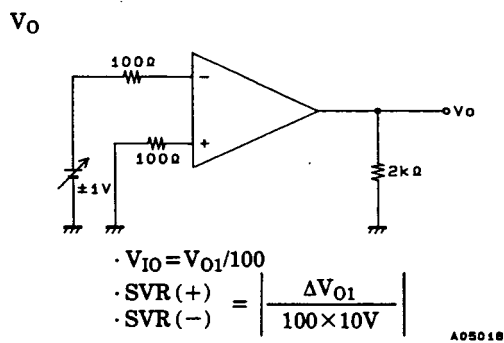
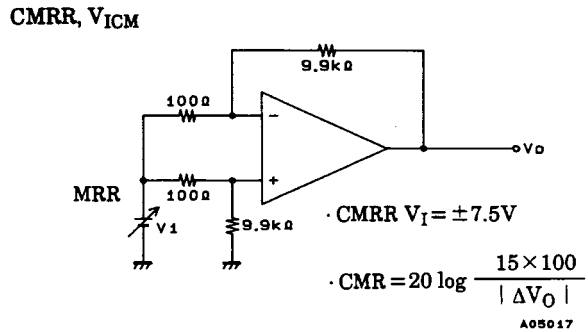
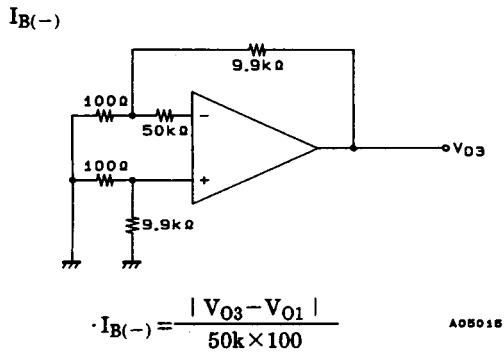
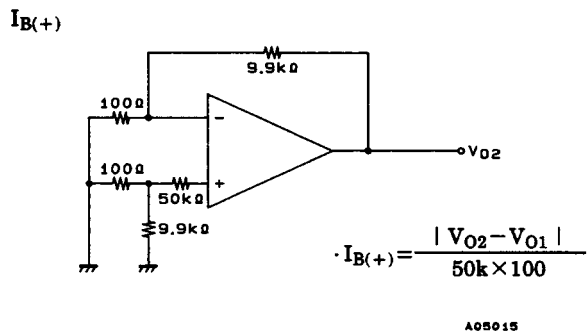
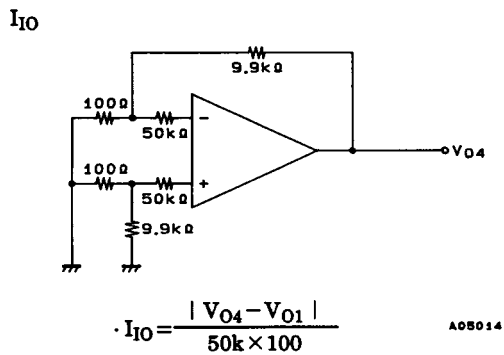
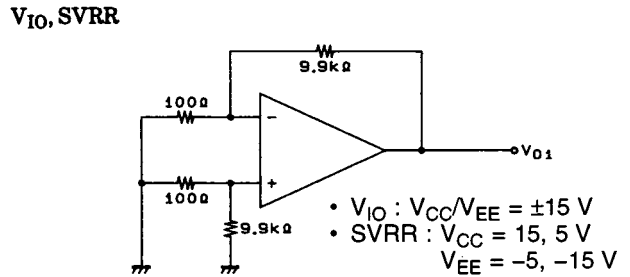
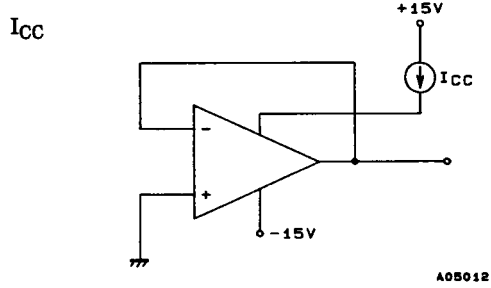
Sample Application Circuit



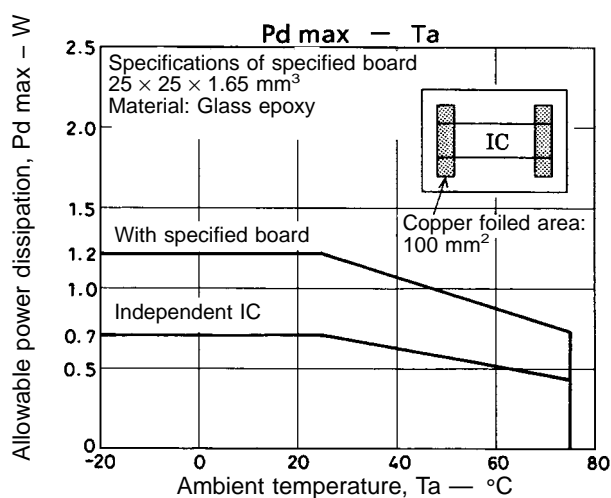
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Test Circuits



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