

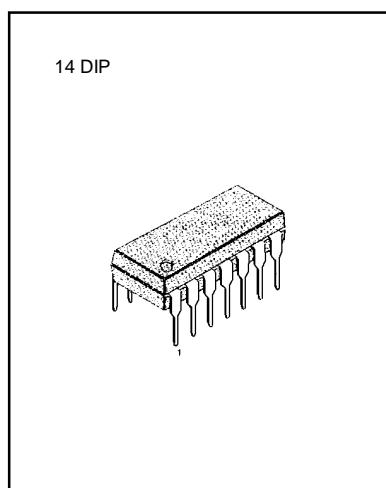
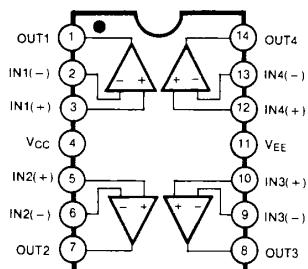
QUAD JFET INPUT OPERATIONAL AMPLIFIERS

The KF347 is a high speed quad JFET input operational amplifiers. This feature high impedance, wide bandwidth, high high slew rate, and low input offset and bias currents. The KF347 may be used in Circuits requiring high input impedance. High slew rate and wide bandwidth, low input bias current.

FEATURES

- Low input bias
- High input impedance
- Wide bandwidth: 4 MHz Typ)
- High slew rate: $13 \text{ V}/\mu\text{s}$ (Typ)

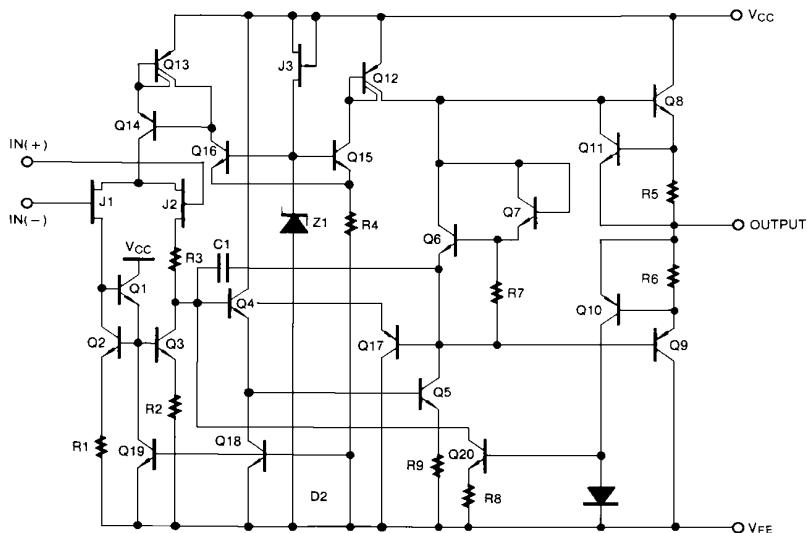
BLOCK DIAGRAM



ORDERING INFORMATION

| Device | Package | Operating Temperature |
|-----------------|---------|-----------------------|
| KF347 KF347A | 14 DIP | 0 ~ + 70°C |

SCHEMATIC DIAGRAM (One Section Only)



KF347/A**QUAD OPERATIONAL AMPLIFIER (JFET)****ABSOLUTE MAXIMUM RATINGS**

| Characteristics | Symbol | Value | Unit |
|-------------------------------------|---------------|------------|------|
| Supply Voltage | V_{CC} | ± 18 | V |
| Differential Input Voltage | $V_{I(DIFF)}$ | ± 30 | V |
| Input Voltage Range | V_I | ± 15 | V |
| Output Short Circuit Duration | | Continuous | |
| Power Dissipation | P_D | 570 | mW |
| Operating Temperature Range KF347/A | T_{OPR} | 0 ~ +70 | °C |
| Storage Temperature Range | T_{STG} | -65 ~ +150 | °C |

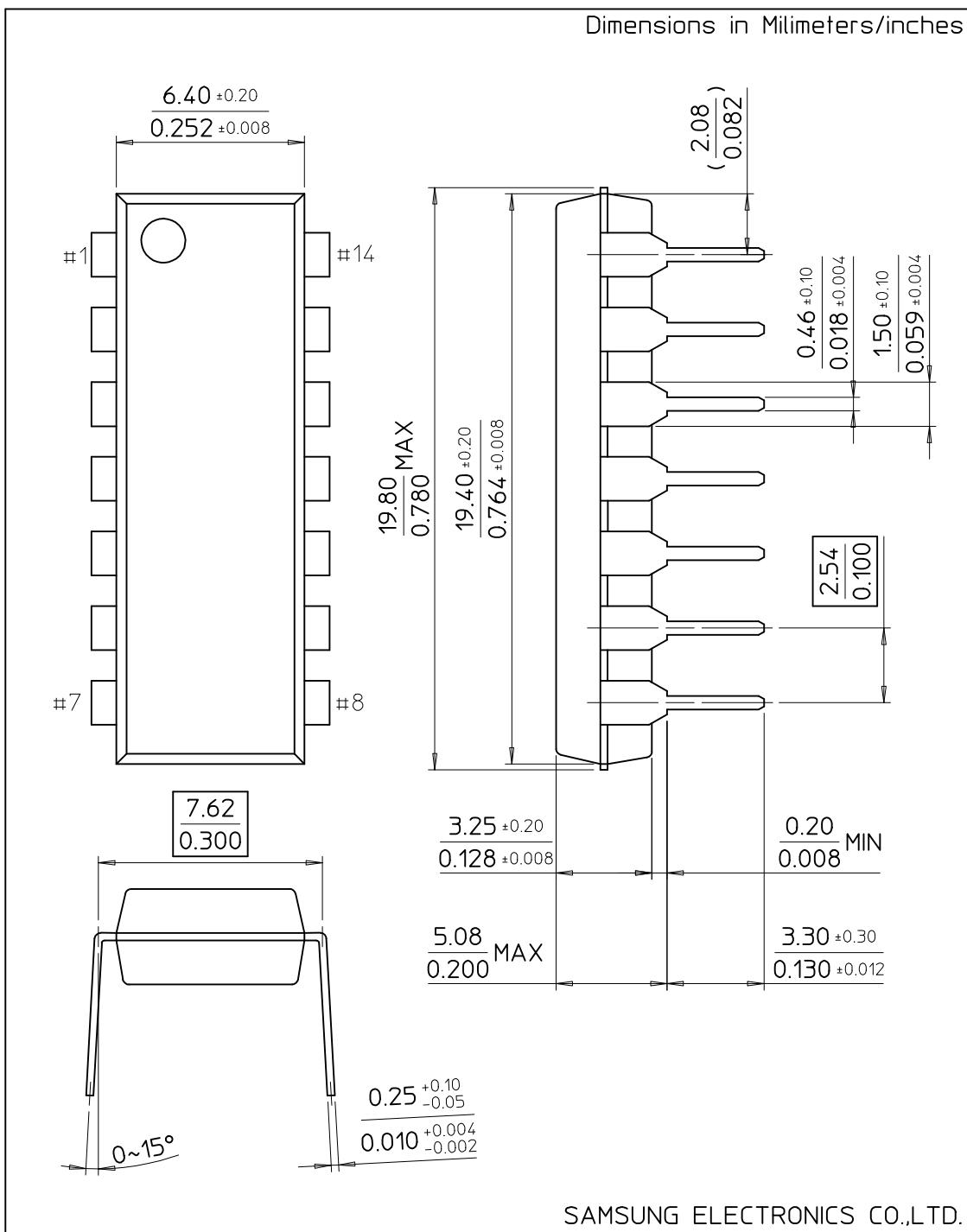
ELECTRICAL CHARACTERISTICS(V_{CC}= +15V, V_{EE}= -15V, T_A=25°C, unless otherwise specified)

| Characteristic | Symbol | Test Conditions | KF347A | | | KF347 | | | Unit |
|--------------------------------|--------------------------|--|----------|------------|-----|-----------|------------|-----|------------------|
| | | | Min | Typ | Max | Min | Typ | Max | |
| Input Offset Voltage | V_{IO} | $R_S = 10K\Omega$ | 3 | 5 | | 5 | 10 | | mV |
| | | | | | 7 | | | 13 | |
| Input Offset Voltage Drift | $\Delta V_{IO}/\Delta T$ | $R_S = 10K\Omega$ | 10 | | | 10 | | | $\mu V/^\circ C$ |
| | | | | 25 | 100 | 25 | 100 | | |
| Input Offset Current | I_{IO} | NOTE 1 | | 4 | | | 4 | | pA |
| | | | 25 | 100 | | 25 | 100 | | |
| Input Bias Current | I_{BIAS} | NOTE 1 | 50 | 200 | | 50 | 200 | | pA |
| | | | | 8 | | | 8 | | |
| Large Signal Voltage Gain | G_V | $R_L = 2K\Omega$ $V_{O(P-P)} = \pm 10V$ | 50 | 100 | | 25 | 100 | | V/mV |
| | | | 15 | | 15 | | | | |
| Output Voltage Swing | $V_{O(P,P)}$ | $R_L = 10K\Omega$ | ± 12 | ± 13.5 | | ± 12 | ± 13.5 | | V |
| | | | | | | | | | |
| Input Voltage Range | $V_{I(R)}$ | | ± 11 | +15 -12 | | ± 11 | +15 -12 | | V |
| | | | | | | | | | |
| Common-Mode Rejection Ratio | CMRR | $R_S \leq 10K\Omega$ | 80 | 100 | | 80 | 100 | | dB |
| Power Supply Rejection Ratio | PSRR | $R_S \leq 10K\Omega$ | 80 | 100 | | 80 | 100 | | dB |
| Input Resistance | R_I | | | 10^{12} | | 10^{12} | | | Ω |
| Supply Current | I_{CC} | | | 7.2 | 11 | | 7.2 | 11 | mA |
| Slew Rate | SR | | | 13 | | 13 | | | $V/\mu S$ |
| Gain Bandwidth Product | GBW | | | 4 | | 4 | | | MHz |
| Channel Separation | CS | f = 1Hz ~ 20Khz (input referenced) | | 120 | | | 120 | | dB |
| Equivalent Input Noise Voltage | V_{NI} | $R_S = 100\Omega$ f = 1KHz | | 20 | | | 20 | | nV/\sqrt{Hz} |
| Equivalent Input Noise Current | I_{NI} | f = 1KHz | | 0.01 | | | 0.01 | | pA/\sqrt{Hz} |

NOTE 1. KF347/A : 0 ≤ T_A ≤ +70°C

14-DIP-300

Dimensions in Millimeters/inches



SAMSUNG ELECTRONICS CO.,LTD.