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# LF347

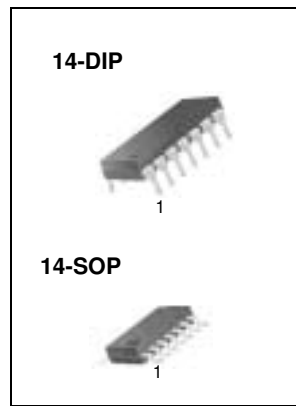
## Quad Operational Amplifier (JFET)

### Features

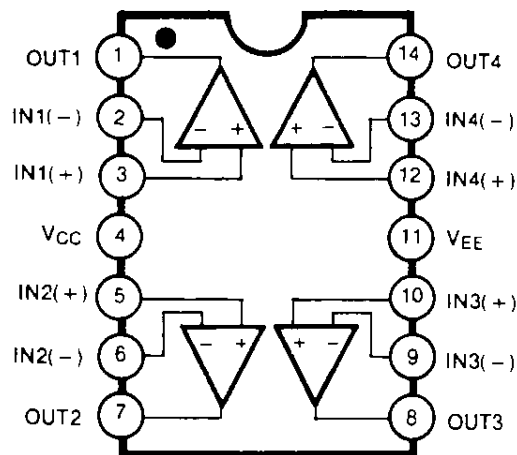
- Low input bias current
- High input impedance
- Wide gain bandwidth: 4 MHz Typ.
- High slew rate: 13 V/μs Typ.

### Description

The LF347 is a high speed quad JFET input operational amplifier. This feature high input impedance, wide bandwidth, high slew rate, and low input offset voltage and bias current. LF347 may be used in circuits requiring high input impedance. High slew rate and wide bandwidth, low input bias current.

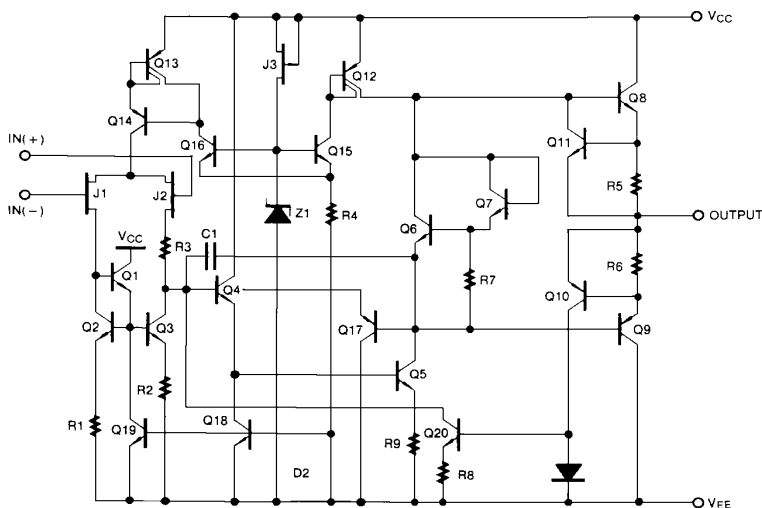


### Internal Block Diagram



## Schematic Diagram

(One Section Only)



## Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Supply Voltage	V <sub>CC</sub>	±18	V
Differential Input Voltage	V <sub>I(DIFF)</sub>	30	V
Input Voltage Range	V <sub>I</sub>	±15	V
Output Short Circuit Duration	-	Continuous	-
Power Dissipation	P <sub>D</sub>	570	mW
Operating Temperature Range	T <sub>OPR</sub>	0 ~ + 70	°C
Storage Temperature Range	T <sub>STG</sub>	-65 ~ + 150	°C

## Electrical Characteristics

(VCC= +15V, VEE= -15V, TA=25 °C, unless otherwise specified)

Parameter	Symbol	Conditions	LF347			Unit
			Min.	Typ.	Max.	
Input Offset Voltage	V <sub>IO</sub>	R <sub>S</sub> = 10KΩ Note 1	-	5	10	mV
			-	-	13	
Input Offset Voltage Drift(Note2)	ΔV <sub>IO</sub> /ΔT	R <sub>S</sub> = 10KΩ	-	10	-	μV/°C
Input Offset Current	I <sub>IO</sub>	Note 1	-	25	100	pA
			-	-	4	nA
Input Bias Current	I <sub>BIAS</sub>	Note 1	-	50	200	pA
			-	-	8	nA
Large Signal Voltage Gain	G <sub>V</sub>	R <sub>L</sub> = 2KΩ V <sub>O(P-P)</sub> = ±10V Note 1	25	100	-	V/mV
			15	-	-	
Output Voltage Swing	V <sub>O(PP)</sub>	R <sub>L</sub> = 10KΩ	±12	±13.5	-	V
Input Voltage Range	V <sub>I(R)</sub>	-	±11	+15 -12	-	V
Common-Mode Rejection Ratio	CMRR	R <sub>S</sub> ≤ 10KΩ	80	100	-	dB
Power Supply Rejection Ratio	PSRR	R <sub>S</sub> ≤ 10KΩ	80	100	-	dB
Input Resistance	R <sub>I</sub>	-	-	10 <sup>12</sup>	-	Ω
Supply Current	I <sub>CC</sub>	-	-	7.2	11	mA
Slew Rate	SR	-	-	13	-	V/μS
Gain Bandwidth Product(Note2)	GBW	-	-	4	-	MHz
Channel Separation	CS	f = 1Hz ~ 20KHz (input referenced)	-	120	-	dB
Equivalent Input Noise Voltage	e <sub>N</sub>	R <sub>S</sub> = 100Ω f = 1KHz	-	20	-	nV/ √Hz
Equivalent Input Noise Current	I <sub>N</sub>	f = 1KHz	-	0.01	-	pA/√Hz

### Note :

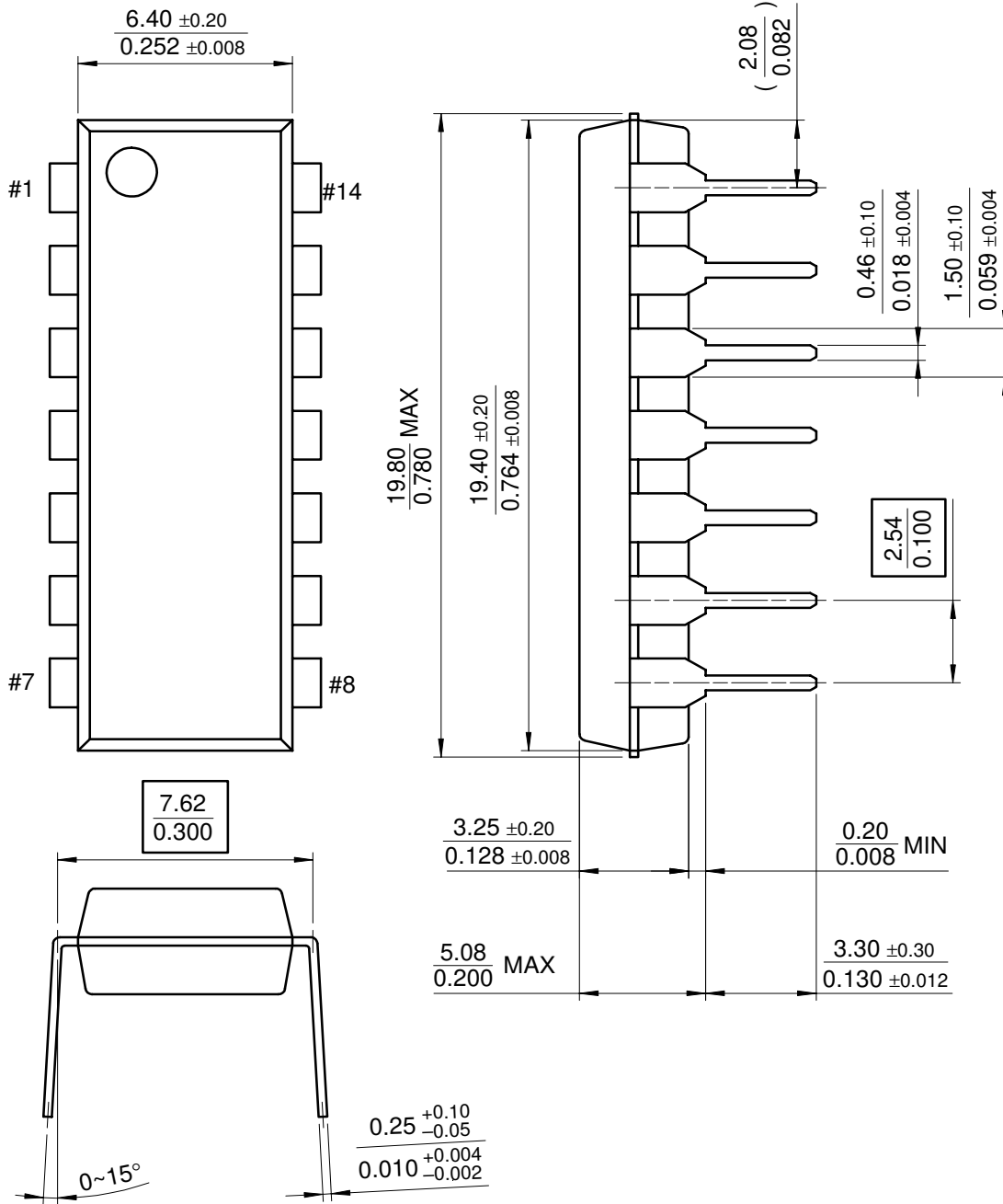
1. LF347 : 0 ≤ T<sub>A</sub> ≤ +70 °C
2. Guaranteed by design

# Mechanical Dimensions

## Package

Dimensions in millimeters

### 14-DIP

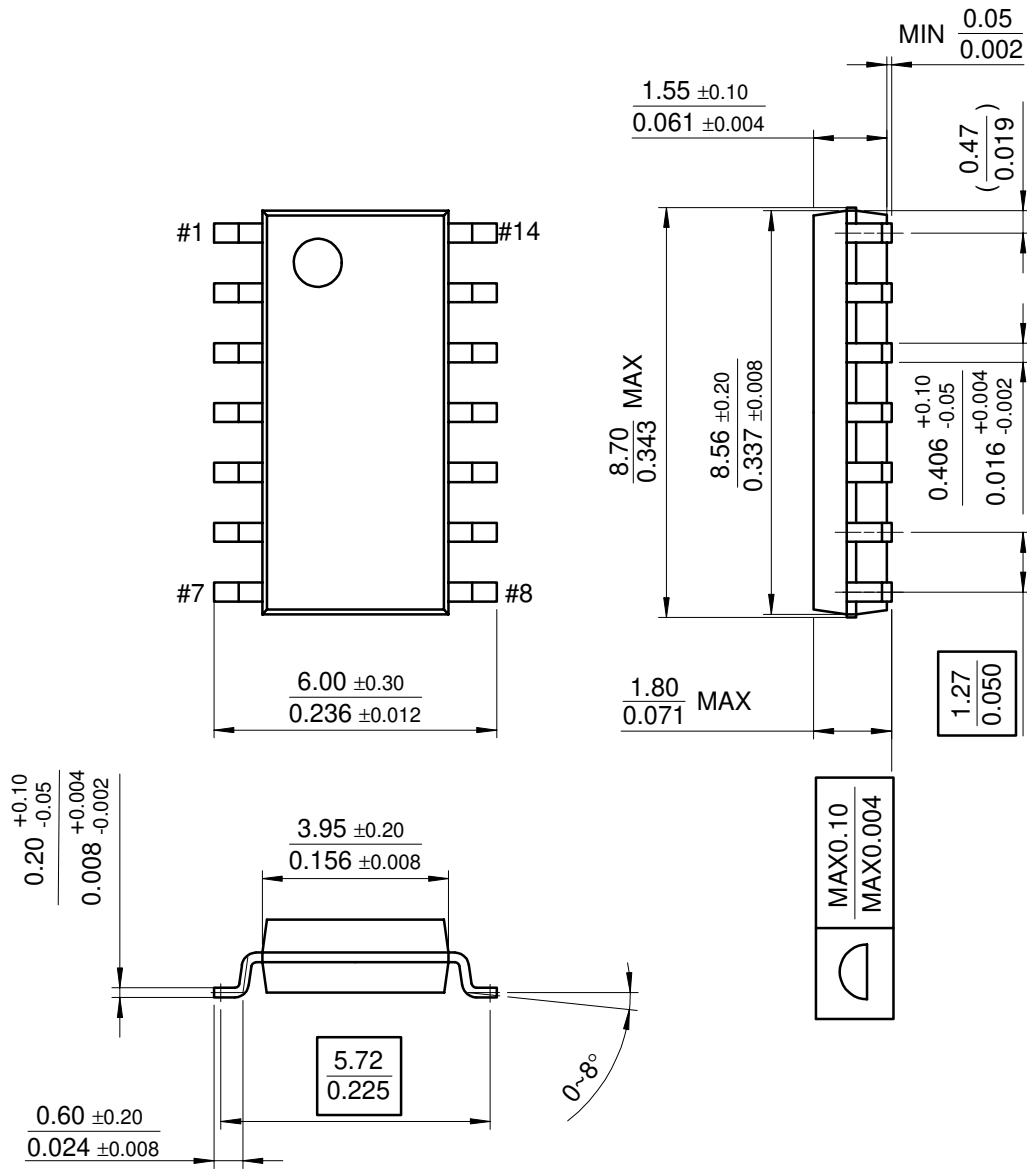


**Mechanical Dimensions** (Continued)

Package

Dimensions in millimeters

**14-SOP**



## Ordering Information

Product Number	Package	Operating Temperature
LF347N	14-DIP	0 ~ + 70°C
LF347M	14-SOP	

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