

# LF351

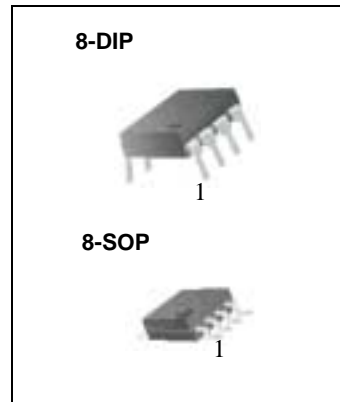
## Single Operational Amplifier (JFET)

### Features

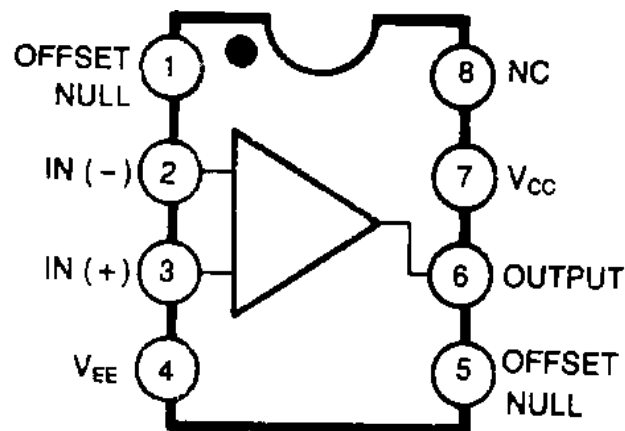
- Internally trimmed offset voltage: 10mV
- Low input bias current : 50pA
- Wide gain bandwidth : 4MHz
- High slew rate : 13V/ $\mu$ s
- High input impedance :  $10^{12}\Omega$

### Description

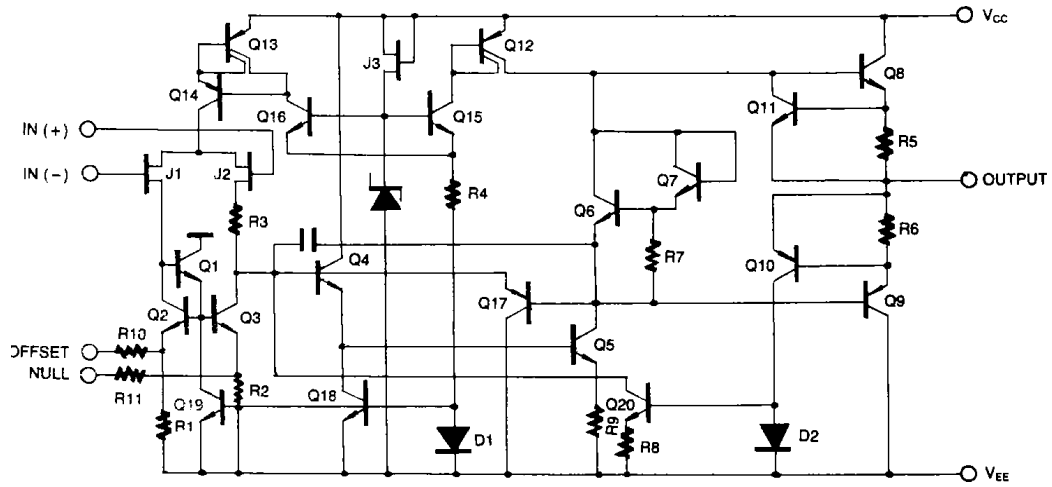
The LF351 is JFET input operational amplifier with an internally compensated input offset voltage. The JFET input device provides wide bandwidth, low input bias currents and offset currents.



### Internal Block Diagram



## Schematic Diagram



## Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Supply Voltage	VCC	±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	PD	500	mW
Operating Temperature	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	Min.	Typ.	Max.	Unit
Input Offset Voltage	V <sub>IO</sub>	R <sub>S</sub> = 10kΩ 0 °C ≤ T <sub>A</sub> ≤ 70 °C	-	5.0	10	mV
			-	-	13	
Input Offset Voltage Drift (Note1)	ΔV <sub>IO</sub> /ΔT	R <sub>S</sub> = 10kΩ 0 °C ≤ T <sub>A</sub> ≤ 70 °C	-	10	-	μV/ °C
Input Offset Current	I <sub>IO</sub>	0 °C ≤ T <sub>A</sub> ≤ 70 °C	-	25	100	pA
			-	-	4	nA
Input Bias Current	I <sub>BAIS</sub>	0 °C ≤ T <sub>A</sub> ≤ 70 °C	-	50	200	pA
			-	-	8	nA
Input Resistance (Note1)	R <sub>I</sub>	-	-	10 <sup>12</sup>	-	Ω
Large Signal Voltage Gain	G <sub>V</sub>	V <sub>O(P-P)</sub> = ±10V R <sub>L</sub> = 2kΩ 0 °C ≤ T <sub>A</sub> ≤ 70 °C	25	100	-	V/mV
			15	-	-	
Output Voltage Swing	V <sub>O(P-P)</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	70	100	-	dB
Power Supply Rejection Ratio	PSRR	R <sub>S</sub> ≤ 10kΩ	70	100	-	dB
Power Supply Current	I <sub>CC</sub>	-	-	2.3	3.4	mA
Slew Rate (Note1)	SR	G <sub>V</sub> = 1	-	13	-	V/μs
Gain-Bandwidth Product (Note1)	GBW	-	-	4	-	MHz

### Note :

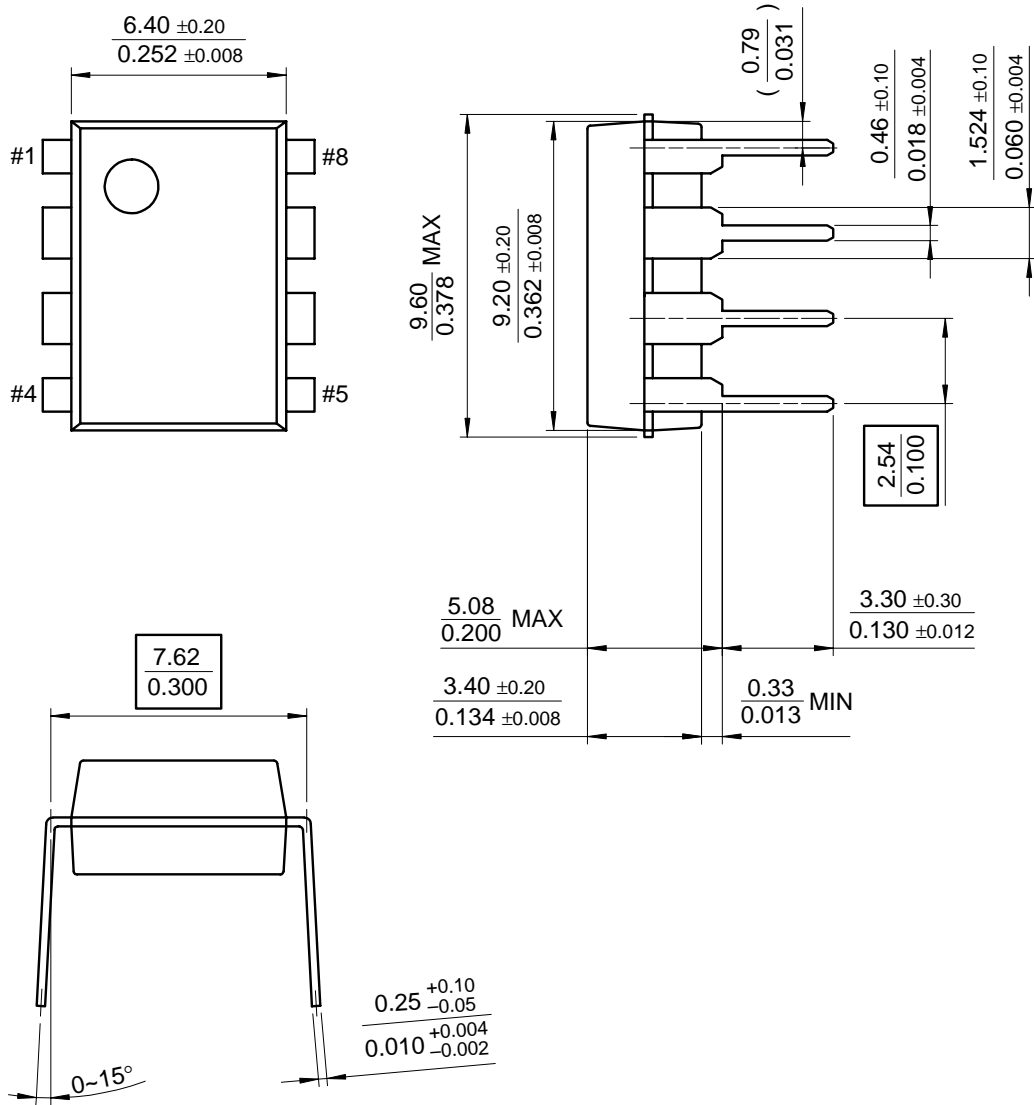
1. Guaranteed by design.

# Mechanical Dimensions

## Package

Dimensions in millimeters

### 8-DIP

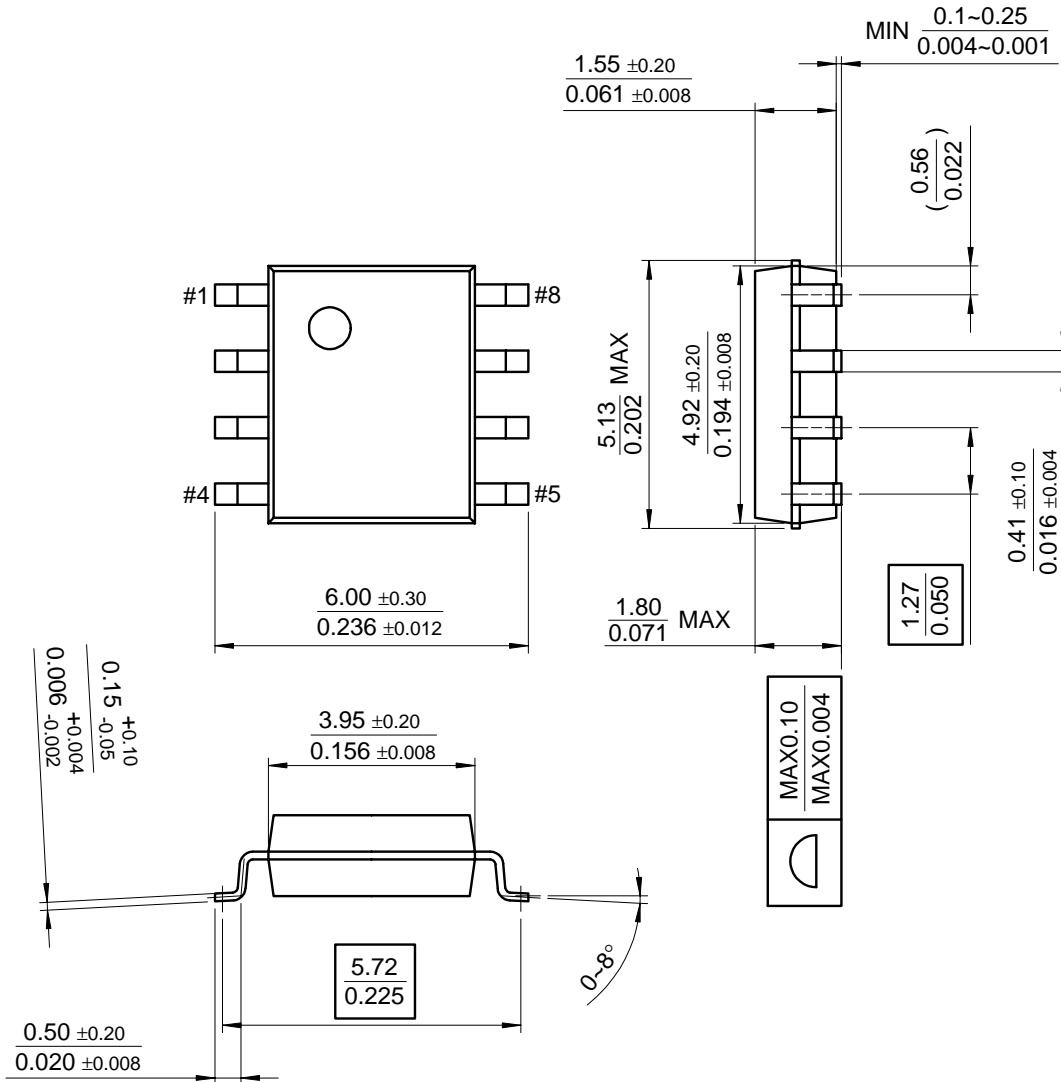


Mechanical Dimensions (Continued)

Package

Dimensions in millimeters

8-SOP



**Ordering Information**

<b>Product Number</b>	<b>Package</b>	<b>Operating Temperature</b>
LF351N	8-DIP	0 ~ + 70°C
LF351M	8-SOP	



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