

# LF351

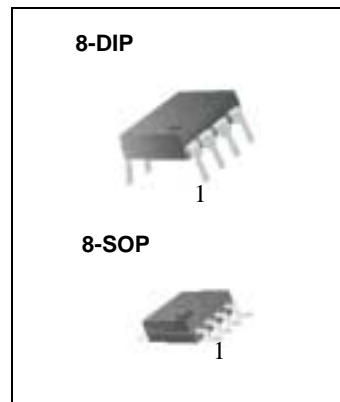
## Single Operational Amplifier (JFET)

### Features

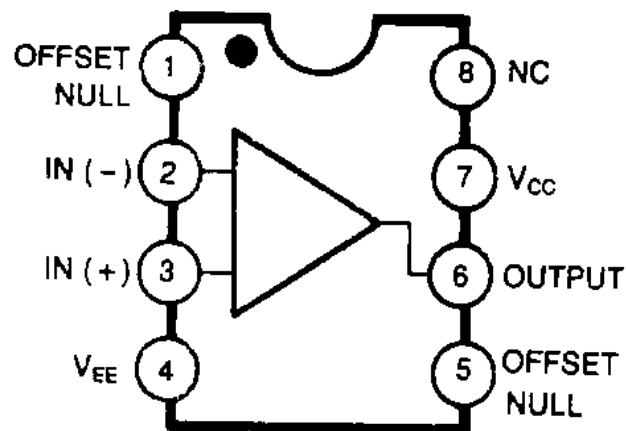
- Internally trimmed offset voltage: 10mV
- Low input bias current : 50pA
- Wide gain bandwidth : 4MHz
- High slew rate : 13V/μs
- High input impedance :  $10^{12}\Omega$

### Description

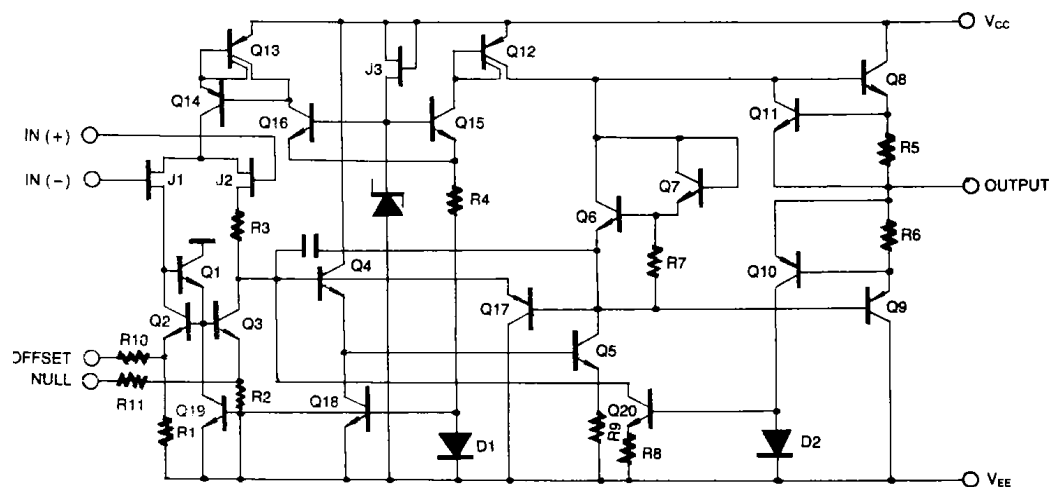
The LF351 is JFET input operational amplifier with an internally compensated input offset voltage. The JFET input device provides wide bandwidth, low input bias currents and offset currents.



### Internal Block Diagram



## Schematic Diagram



## Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Supply Voltage	VCC	$\pm 18$	V
Differential Input Voltage	V <sub>I(DIFF)</sub>	30	V
Input Voltage Range	V <sub>I</sub>	$\pm 15$	V
Output Short Circuit Duration	-	Continuous	-
Power Dissipation	P <sub>D</sub>	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	-	5.0	10	mV	
		0 °C≤T <sub>A</sub> ≤70 °C	-	-	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>			-	25	100	pA
		0 °C≤T <sub>A</sub> ≤70 °C	-	-	4	nA	
Input Bias Current	I <sub>BAIS</sub>			-	50	200	pA
		0 °C≤T <sub>A</sub> ≤70 °C	-	-	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</sub> (P-P)= ±10V		25	100	-	V/mV
		R <sub>L</sub> =2kΩ	0 °C≤T <sub>A</sub> ≤70 °C	15	-	-	
Output Voltage Swing	V <sub>O</sub> (P-P)	R <sub>L</sub> = 10kΩ	±12	±13.5	-	V	
Input Voltage Range	V <sub>I</sub> (R)	-	±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 :

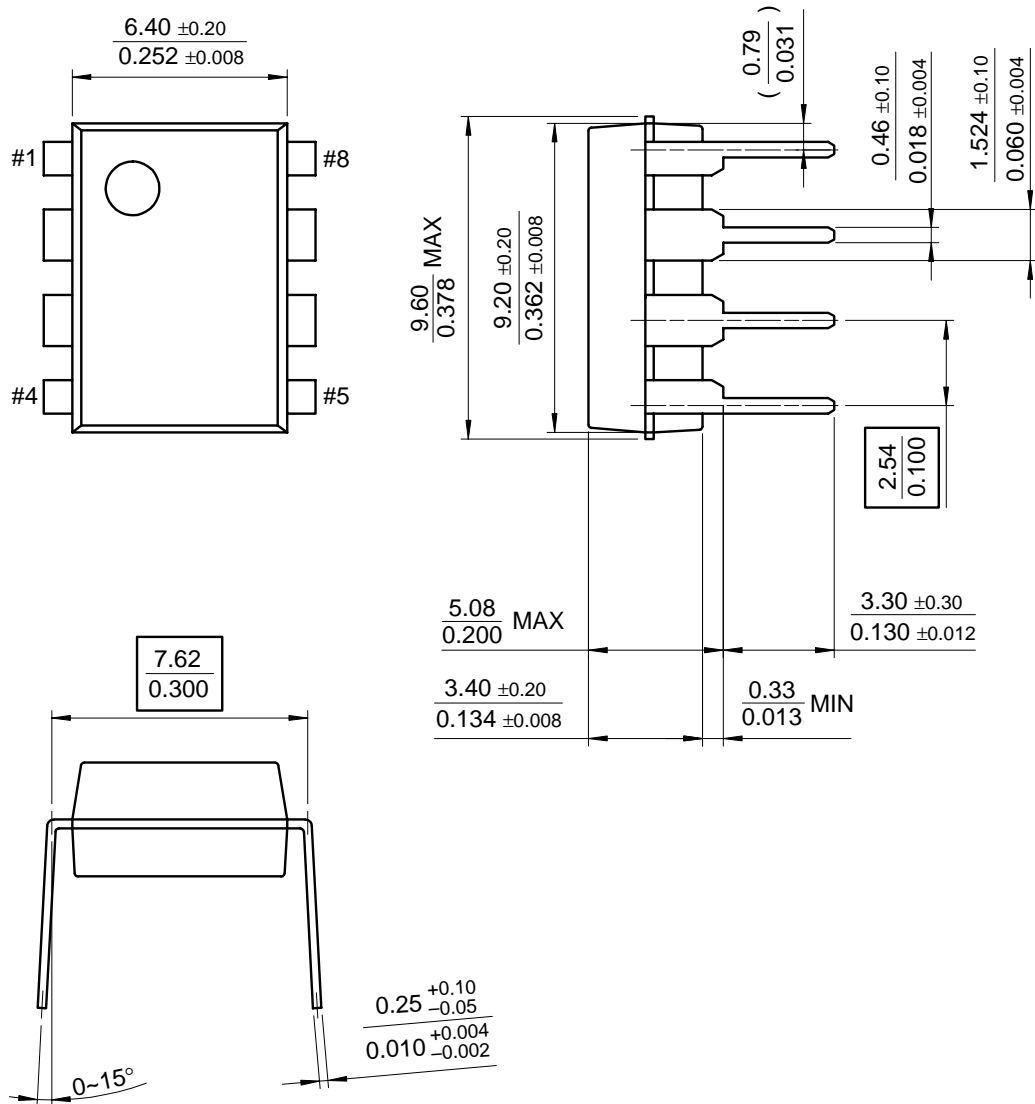
1. Guaranteed by design.

## Mechanical Dimensions

### Package

Dimensions in millimeters

### 8-DIP

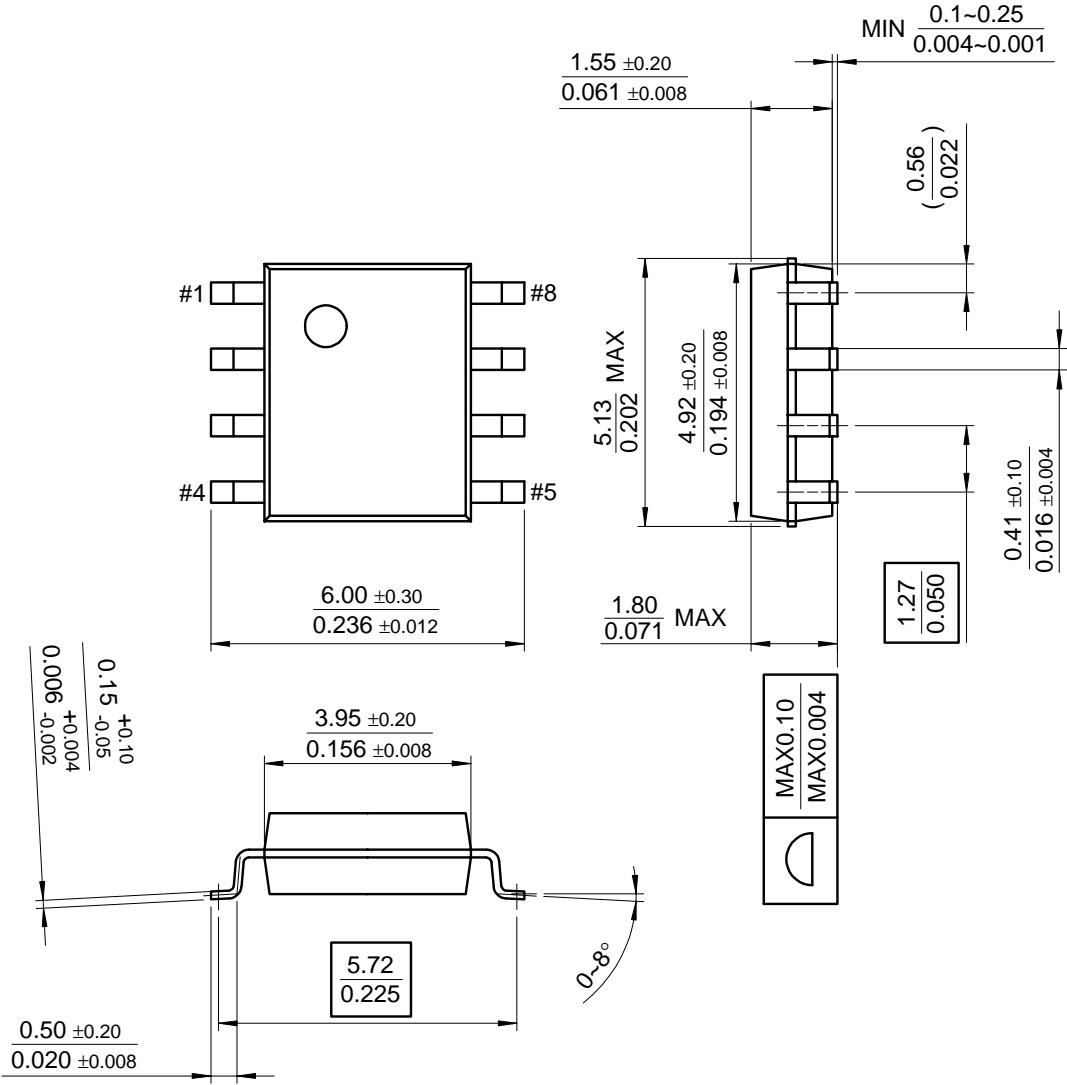


# Mechanical Dimensions (Continued)

Package

Dimensions in millimeters

## 8-SOP



## Ordering Information

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



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