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.

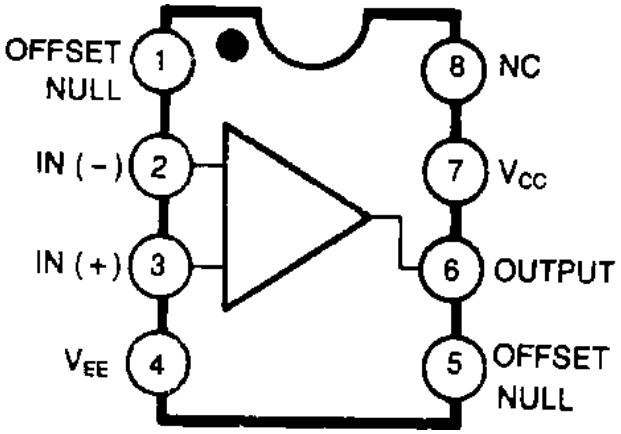
8-DIP

1

8-SOP

1

Internal Block Diagram



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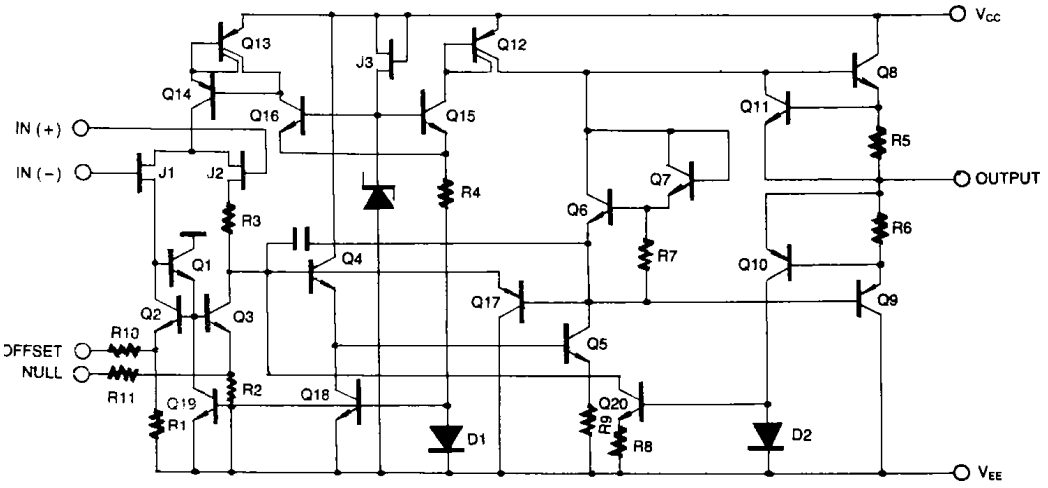
Schematic Diagram



Absolute Maximum Ratings

Parameter	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	500	mW
Operating Temperature	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)

Parameter	Symbol	Conditions		Min.	Typ.	Max.	Unit
Input Offset Voltage	V_{IO}	R_S = 10kΩ		-	5.0	10	mV
			0 °C≤T_A≤70 °C	-	-	13	
Input Offset Voltage Drift (Note1)	$\Delta V_{IO}/\Delta T$	R_S = 10kΩ	0 °C≤T_A≤70 °C	-	10	-	µV/ °C
Input Offset Current	I_{IO}			-	25	100	pA
			0 °C≤T_A≤70 °C	-	-	4	nA
Input Bias Current	I_{BAIS}			-	50	200	pA
			0 °C≤T_A≤70 °C	-	-	8	nA
Input Resistance (Note1)	R_I	-		-	10^{12}	-	Ω
Large Signal Voltage Gain	G_V	$V_{O(P-P)}$= ±10V		25	100	-	V/mV
		R_L=2kΩ	0 °C≤T_A≤70 °C	15	-	-	
Output Voltage Swing	$V_{O(P-P)}$	R_L = 10kΩ		±12	±13.5	-	V
Input Voltage Range	$V_{I(R)}$	-		±11	+15 -12	-	V
Common Mode Rejection Ratio	C_{MRR}	R_S≤10kΩ		70	100	-	dB
Power Supply Rejection Ratio	P_{SRR}	R_S≤10kΩ		70	100	-	dB
Power Supply Current	I_{CC}	-		-	2.3	3.4	mA
Slew Rate (Note1)	S_R	G_V = 1		-	13	-	V/µs
Gain-Bandwidth Product (Note1)	GBW	-		-	4	-	MHz

Note :

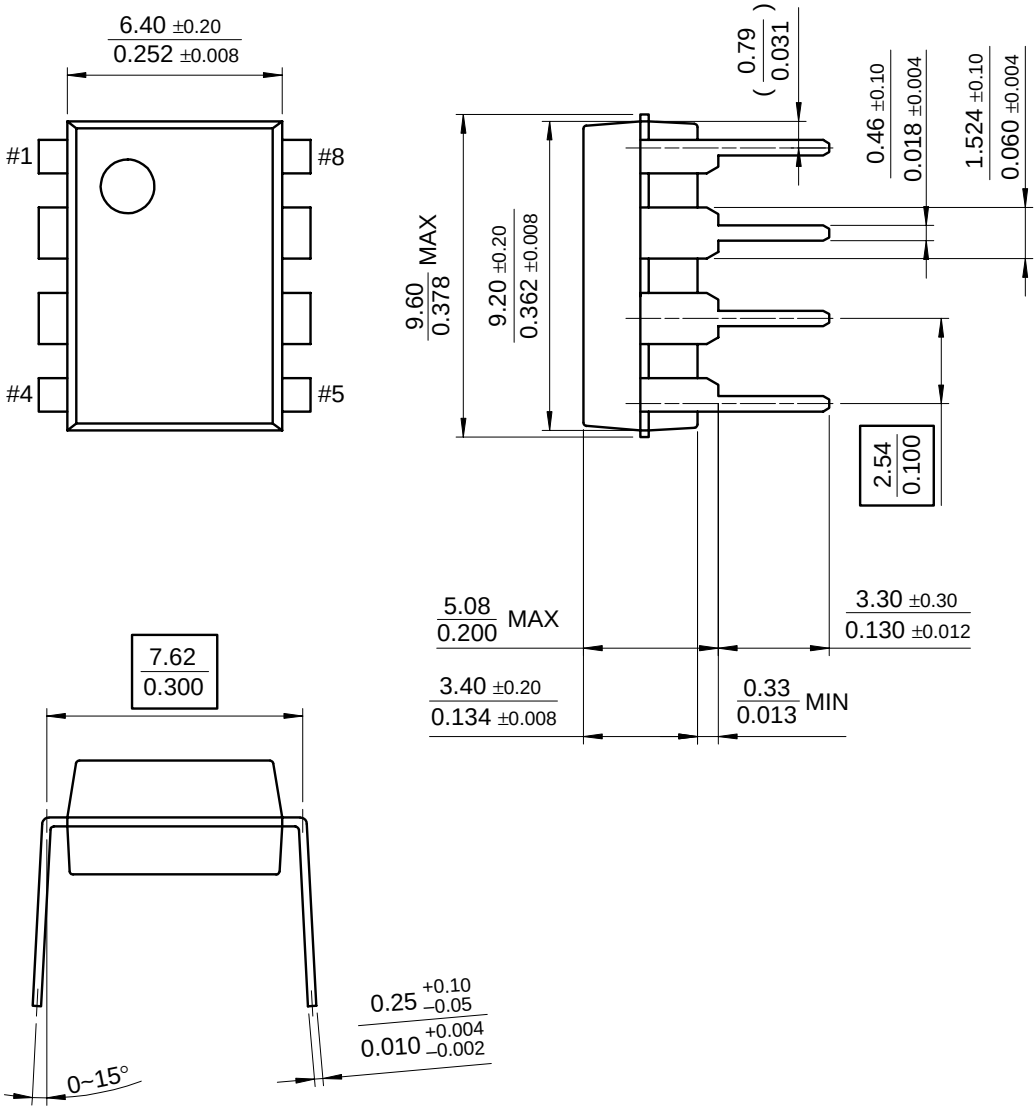
1. Guaranteed by design.

Mechanical Dimensions

Package

Dimensions in millimeters

8-DIP

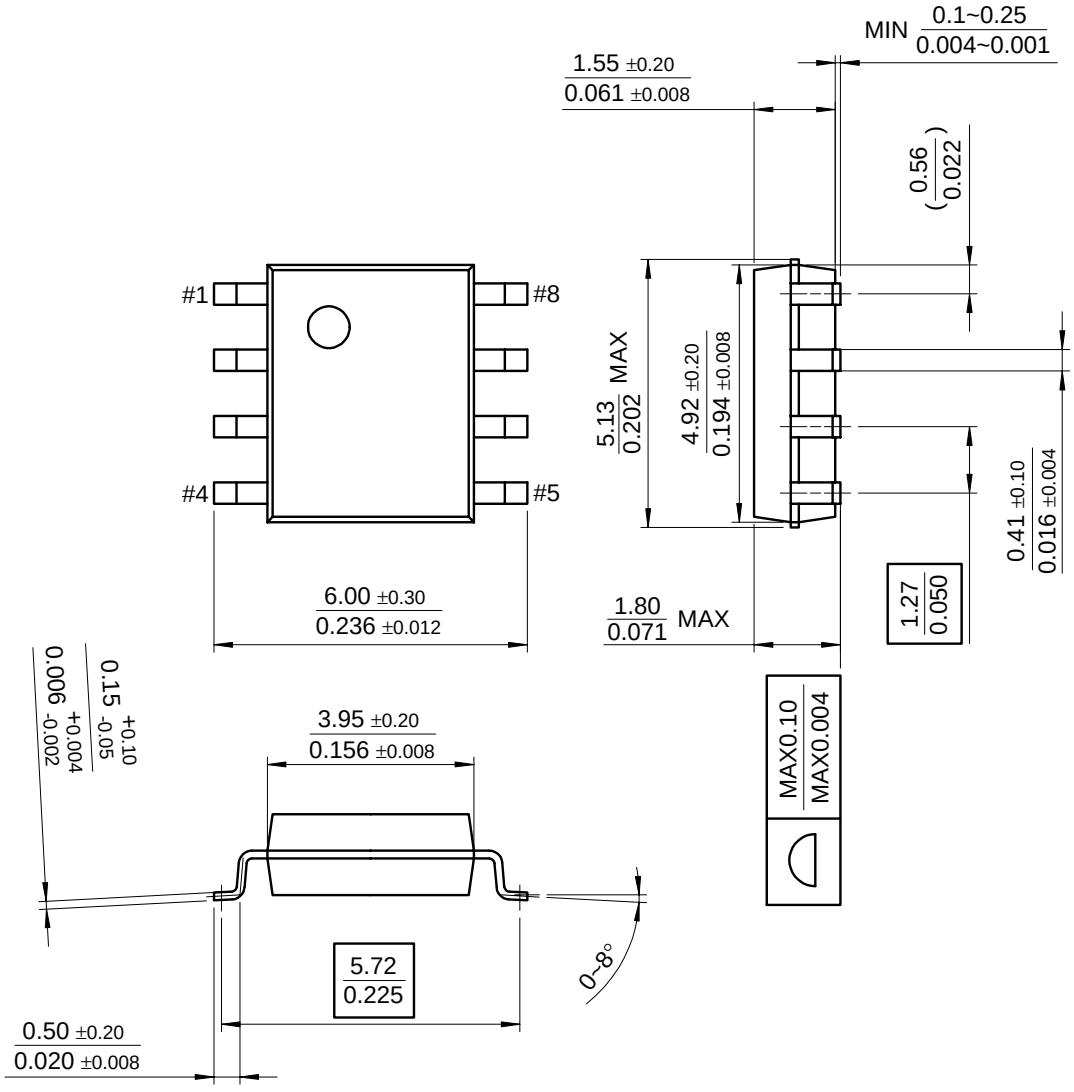


Mechanical Dimensions (Continued)

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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