KF351

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 : $10^{12}\Omega$

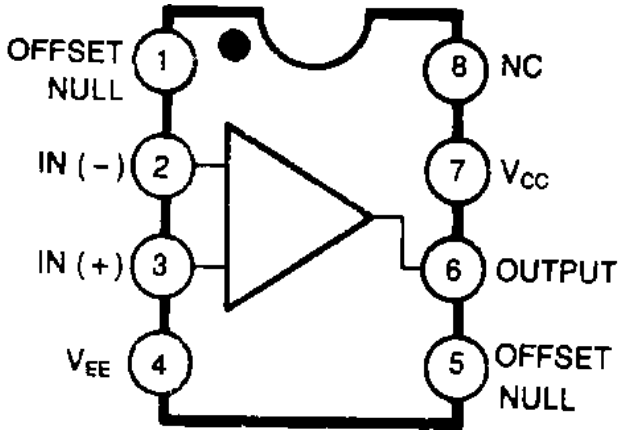
Description

The KF351 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.

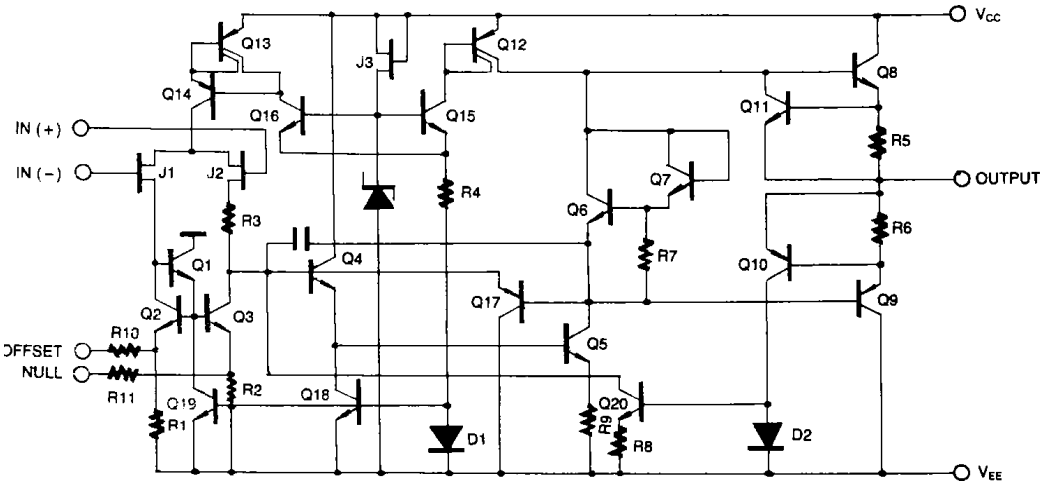
8-DIP

1

Internal Block Diagram



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 :

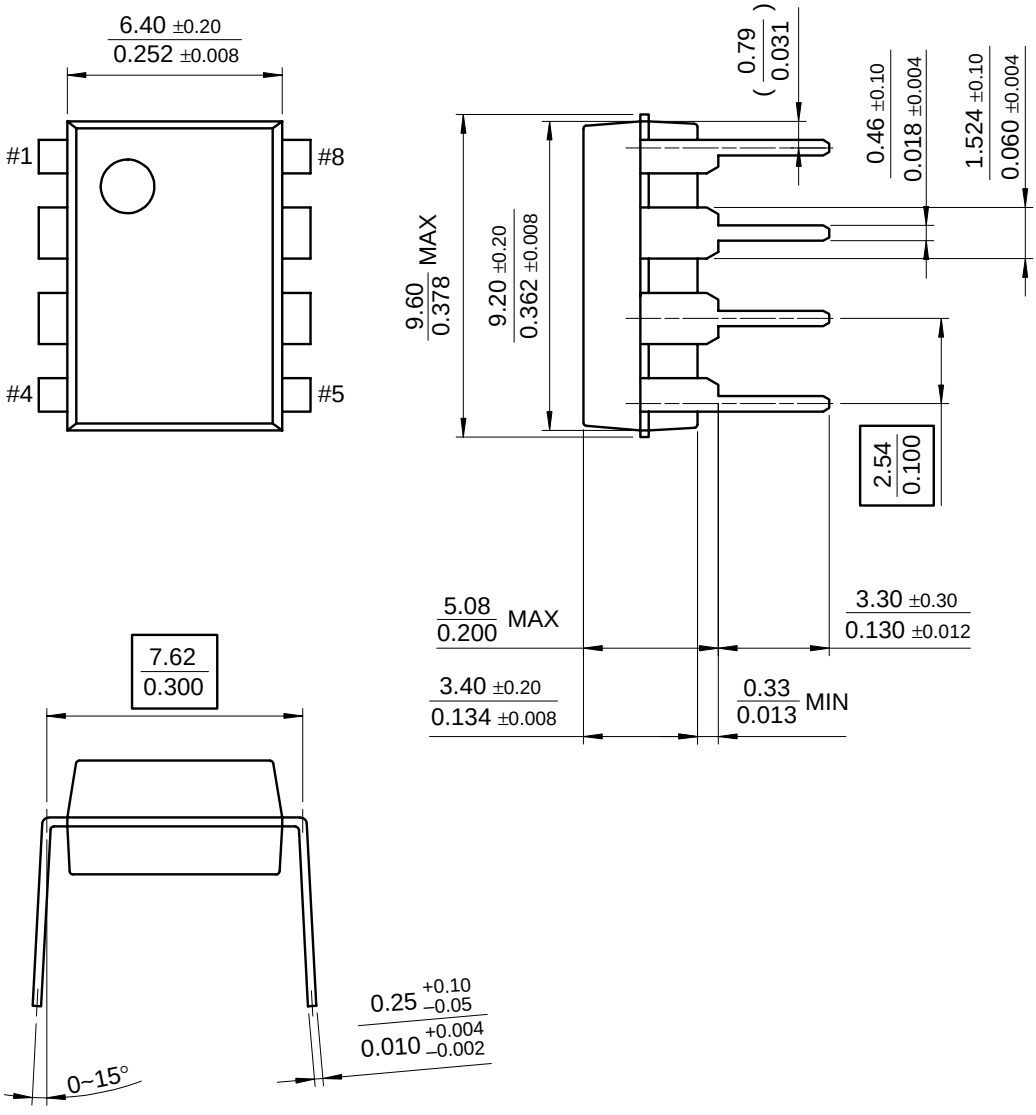
1. Guaranteed by design.

Mechanical Dimensions

Package

Dimensions in millimeters

8-DIP



Ordering Information

Product Number	Package	Operating Temperature
KF351	8-DIP	0 ~ + 70°C

DISCLAIMER

FAIRCHILD SEMICONDUCTOR RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. FAIRCHILD DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENSE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

LIFE SUPPORT POLICY

FAIRCHILD'S PRODUCTS ARE NOT AUTHORIZED FOR USE AS CRITICAL COMPONENTS IN LIFE SUPPORT DEVICES OR SYSTEMS WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE PRESIDENT OF FAIRCHILD SEMICONDUCTOR CORPORATION. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

6/1/01 0.0m 001
Stock#DSxxxxxxxx