LOW POWER SINGLE OPERATIONAL AMPLIFIER

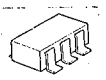
■ GENERAL DESCRIPTION

The NJM2130 is a general purpose low power single operational amplifier..

The features of low power, low operating voltage, and ultra mini package (MTP5) are most suitable for portable items.

The NJM2130 incorporates frequency compensation and short-circuit protection as same as NJM022 and the characteristics are also same as NJM022.

■ PACKAGE OUTLINE

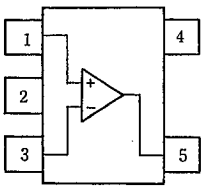


NJM2130F

■ FEATURES

- Operating Voltage (±2V～±18V)
- Low Supply Current (80 μA typ.)
- Short-Circuit Protection (±6mA typ.)
- Mounted in Ultra Miniature Package 2.9×1.5mm (1/5 of DMP-8 package)
- Bipolar Technology
- Package Outline MTP5

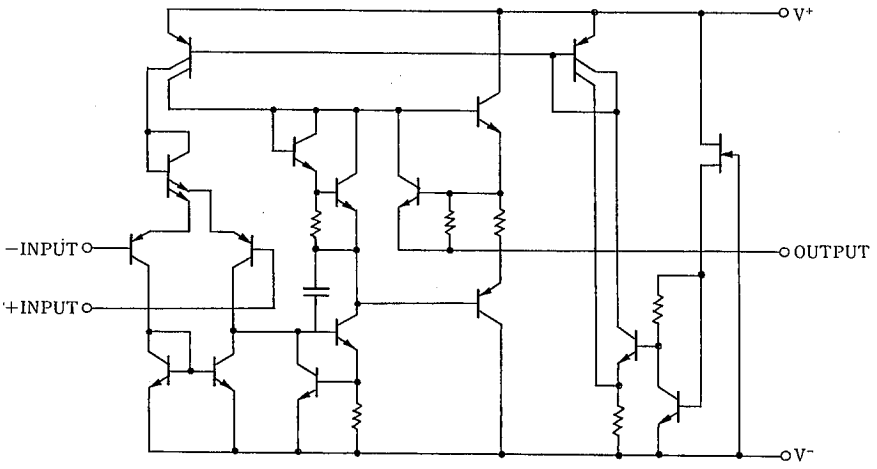
■ PIN CONFIGURATION



NJM2130F

PIN FUNCTION
1. +INPUT
2. V^-
3. −INPUT
4. OUTPUT
5. V^+

■ EQUIVALENT CIRCUIT



■ ABSOLUTE MAXIMUM RATINGS

(Ta=25℃)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V^+/V^-	±18	V
Input Voltage	V_{IC}	±15(note)	V
Differential Input Voltage	V_{ID}	±30	V
Power Dissipation	P_D	200	mW
Operating Temperature Range	T_{opr}	−40～+85	℃
Storage Temperature Range	T_{stg}	−40～+125	℃

(note) When the supply voltage is less than ±15V, the absolute maximum input voltage is equal to the supply voltage.

■ ELECTRICAL CHARACTERISTICS

(V^+/V^-=±15V, Ta=25℃)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Input Offset Voltage	V_{IO}	$R_S \leqq 10k\Omega$	−	1	5	mV
Input Offset Current	I_{IO}		−	1	80	nA
Input Bias Current	I_B		−	15	250	nA
Large Signal Voltage Gain	A_V	$R_L \geqq 10k\Omega$, V_O=±10V	60	88	−	dB
Common mode Rejection Ratio	CMR	$R_S \leqq 10k\Omega$	60	90	−	dB
Response Time (Rise Time)	t_R	V_{IN}=20mV, R_L=10kΩ, C_L=100pF	−	0.3	−	μs
Slew Rate	SR	V_{IN}=10V, R_L=10kΩ, C_L=100pF	−	0.5	−	V/μs
Input Common Mode Voltage Range	V_{ICM}		±12	±13	−	V
Supply Voltage Rejection Ratio	SVR	$R_S \leqq 10k\Omega$	74	110	−	dB
Equivalent Input Noise Voltage	e_n	A_V=20dB, f=1kHz	−	50	−	$nV\sqrt{Hz}$
Short-circuit Output Current	I_{OS}		−	±6	−	mA
Operating Current	I_{CC}		−	80	170	μA
Maximum Output Voltage Swing	V_{OM}	R_L=10kΩ	±10	±14	−	V

MEMO

[CAUTION]
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