ULTRA WIDE BAND, HIGH SLUE RATE DUAL OPERATIONAL AMPLIFIER

■ GENERAL DESCRIPTION

The NJM2137 is an ultra wide band, high slew rate dual operational amplifier operated from low voltage (±1.35V).

It can apply to active filter, high speed analog and digital signal processor, line driver, HDTV, industrial measurement equipment and others.

It can also apply to portable communication items because of low operating voltage and low operating current.

■ PACKAGE OUTLINE

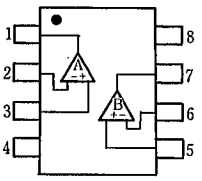
NJM2137V

NJM2137M

■ FEATURES

- Operating Voltage (±1.35V ~ ±6V)
- Ultra Wide Band (200MHz typ.)
- High Slew Rate (45V/μs typ.)
- Low Operating Current (1.14mA typ.)
- Bipolar Technology
- Package Outline SSOP8, DMP8

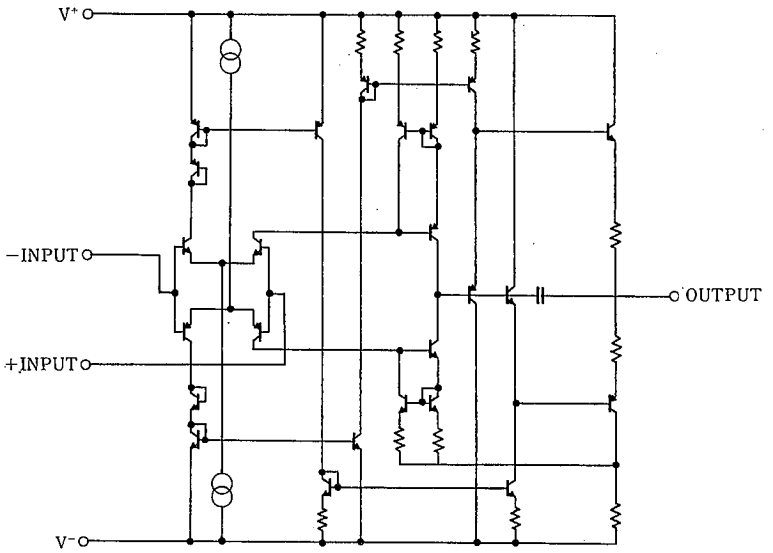
■ PIN CONFIGURATION



NJM2137M
NJM2137V

PIN FUNCTION
1. A OUTPUT
2. A −INPUT
3. A +INPUT
4. V⁻
5. B +INPUT
6. B −INPUT
7. B OUTPUT
8. V⁺

■ EQUIVALENT CIRCUIT (1/2 Shown)



■ ABSOLUTE MAXIMUM RATINGS

(Ta=25℃)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V^+/V^-	±6.75	V
Differential Input Voltage	V_{ID}	±3	V
Power Dissipation	P_D	(SSOP-8) 250 (DMP-8) 300	mV
Operating Temperature Range	T_{opr}	−40～+85	℃
Storage Temperature Range	T_{stg}	−50～+125	℃

■ ELECTRICAL CHARACTERISTICS

(V^+/V^-=±2.5V, Ta=25℃)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Operating Voltage	V^+/V^-		±1.35	±2.50	±6.00	V
Input Offset Voltage	V_{IO}	R_S=0Ω	−	1.0	5.0	mV
Input Bias Current	I_B		−	0.5	2.0	μA
Input Offset Current	I_{IO}		−	20	200	nA
Large Signal Voltage Gain	A_V	R_L≧10kΩ	65	75	−	dB
Input Common Mode Voltage Range	V_{ICM}		1.2	1.5	−	V
			−1.2	−1.5	−	
Common Mode Rejection Ratio	CMR	-1V≦V_{cm}≦+1V	45	60	−	dB
Supply Voltage Rejection Ratio	+SVR		50	60	−	dB
	−SVR		70	80	−	
Maximum Output Voltage Swing	V_{OM}	R_L=1kΩ	1.1	1.4	−	V
			−0.9	−1.2	−	
Opreating Current	I_{CC}	R_L=∞(all Amp.)	−	1.14	1.5	mA
Slew Rate	SR	A_V=0dB	−	45	−	V/μs
Gain Bandwidth Product	GB	60dB・500kHz	100	200	−	MHz
Phase Margin	ϕ_M	40dB	−	25	−	deg
Unity Gain Bandwidth	f_T	40dB	−	40	−	MHz

MEMO

[CAUTION]
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