

NJM339

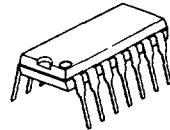
PRELIMINARY

These devices offer higher frequency operation and faster switching than internally compensated quad op amps. For single-supply applications, the Darlington PNP input stage allows them to compare voltages that include ground. The two-stage common-emitter output circuit provides gain and output sink capacity of 6mA at an output level of 400mV. The output collector is left open, permitting the designer to drive devices in the range of 2V to 36V.

■ **Absolute Maximum Ratings** (Ta=25°C)

Supply Voltage	V ⁺	36 V
Input Voltage	V _I	-0.3 ~ +36 V
Differential Input Voltage	V _{ID}	36 V
Power Dissipation	P _D	570 mW
Operating Temperature Range	T _{OPR}	0 ~ 70 °C
Storage Temperature Range	T _{STG}	-50 ~ 125 °C

■ **Package Outline**



NJM339D



NJM339E

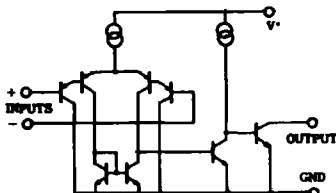


NJM339M

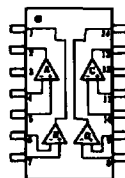
■ **Electrical Characteristics** (Ta=25 °C, V⁺=5V)

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Input Offset Voltage	V _{IO}	R _S =0Ω, V _O =1.4V			±5	mV
Input Offset Current	I _{IO}				±50	nA
Input Bias Current	I _B				250	nA
Input Common-Mode Voltage Range	V _{ICM}		0		3.5	V
Supply Current	I _{CC}	R _L =infinity, V ⁺ =5V			2.0	mA
	I _{CC}	R _L =infinity, V ⁺ =30V			2.5	mA
Voltage Gain	A _V	R _L =15kΩ		106		dB
Output Sink Current	I _{SNK}	V _{IN} =1.0V, V _{IN+} =0V, V _O =1.5V	6			mA
Saturation Voltage	V _{BAT}	V _{IN} =1.0V, V _{IN+} =0V, I _{SNK} =3mA			400	mV
Output Leakage Current	I _{LEAK}	V _{IN} =0V, V _{IN+} =1.0V, V _O =5V			1	μA

■ **Equivalent Circuit**



■ **Connection Diagram**



PIN	FUNCTION
1	B OUTPUT
2	A OUTPUT
3	V ⁺
4	A- INPUT
5	A+ INPUT
6	B- INPUT
7	B+ INPUT
8	C- INPUT
9	C+ INPUT
10	D- INPUT
11	D+ INPUT
12	GND
13	D OUTPUT
14	C OUTPUT

■ Typical Characteristics

