

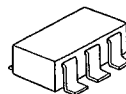
SINGLE COMPARATOR

■ GENERAL DESCRIPTION

The NJM2406F is a single comparator of ultra miniature surface mount package.

The NJM2406F is suitable for small electronic equipments and hybrid circuits.

■ PACKAGE OUTLINE

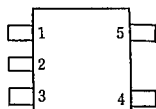


NJM2406F

■ FEATURES

- Operating Voltage (2.5V~7V)
- Single Supply Operation
- Mounted in Ultra Miniature Package 2.9×1.5mm (1/5 of DMP-8 package)
- Ground Shield Plate between + Input and Output
- Ground Shield Plate between + Input and - Input
- Suitable Pin Arrangement for Application
- Package Outline MTP5
- Bipolar Technology

■ PIN CONFIGURATION

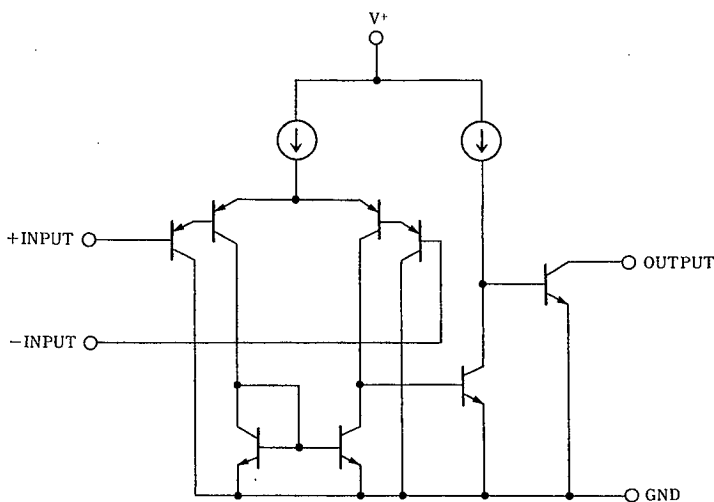


NJM2406F

PIN FUNCTION

1. -INPUT
2. GND
3. +INPUT
4. OUTPUT
5. V+

■ EQUIVALENT CIRCUIT



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■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V*	7	V
Differential Input Voltage	V _{ID}	7	V
Input Voltage	V _{IN}	-0.3 to 7	V
Power Dissipation	P _D	200	mW
Output to Negative Supply Voltage	V _{SUS}	20	V
Operating Temperature Range	T _{OPR}	-40~+85	°C
Storage Temperature Range	T _{STG}	-40~+125	°C

■ ELECTRICAL CHARACTERISTICS

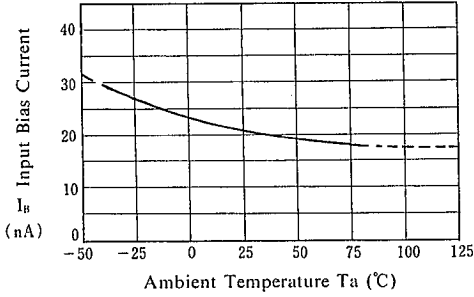
(V*=5V, Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Input Offset Voltage	V _{IO}	R _S = 0Ω, V _O = 1.4V	—	1	7	mV
Input Offset Current	I _{IO}		—	1	50	nA
Input Bias Current	I _B		—	20	250	nA
Input Common Mode Voltage Range	V _{ICM}		0~3.5	—	—	V
Large Signal Voltage Gain	A _V	R _L = 15kΩ	—	106	—	dB
Response Time	t _r	R _L = 5.1kΩ	—	1.5	—	μs
Output Sink Current	I _{SINK}	V _{IN} ⁻ = 1V, V _{IN} ⁺ = 0V, V _O = 1.5V	6	—	—	mA
Output Saturation Voltage	V _{SAT}	V _{IN} ⁻ = 1V, V _{IN} ⁺ = 0V, I _{SINK} = 5mA	—	300	500	mV
Output Leakage Current	I _{LEAK}	V _{IN} ⁻ = 0V, V _{IN} ⁺ = 1V, V _O = 20V	—	—	1	μA
Operating Current	I _{CC}		200	400	800	μA

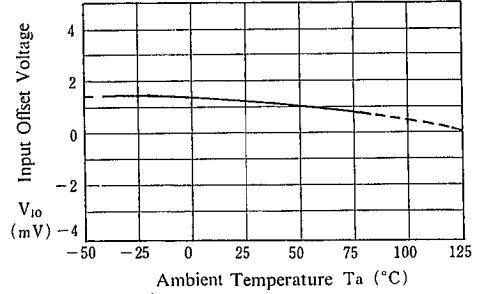


■ TYPICAL CHARACTERISTICS

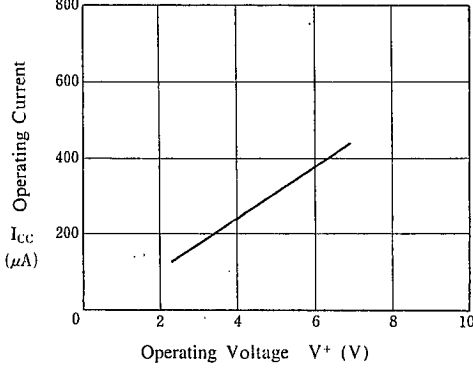
Input Bias Current vs. Temperature
($V^+ = 5\text{ V}$)



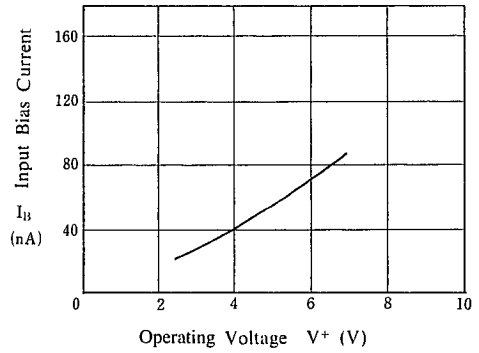
Input Offset Voltage vs. Temperature
($V^+ = 5\text{ V}$)



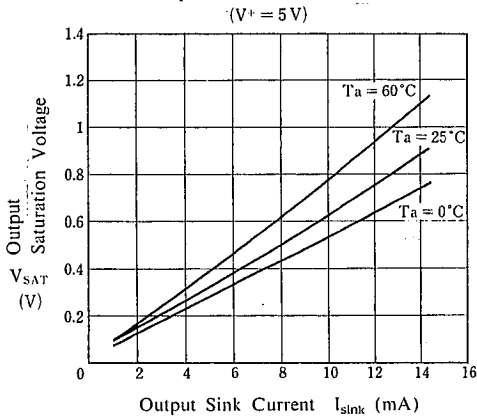
Operating Current vs. Operating Voltage
($T_a = 25^\circ\text{C}$)



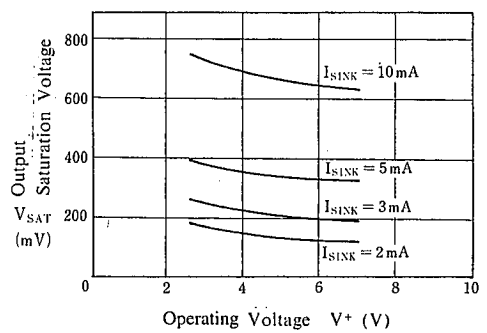
Input Bias Current vs. Operating Voltage
($T_a = 25^\circ\text{C}$)



Output Saturation Voltage vs. Output Sink Current
($V^+ = 5\text{ V}$)



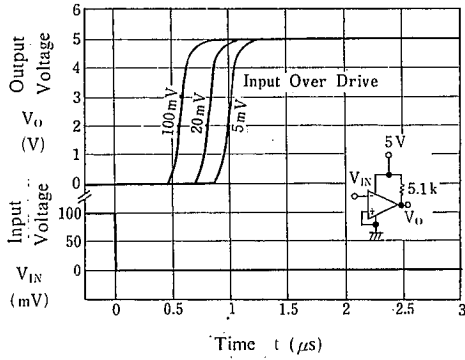
Output Saturation Voltage vs. Operating Voltage
($T_a = 25^\circ\text{C}$)



■ TYPICAL CHARACTERISTICS

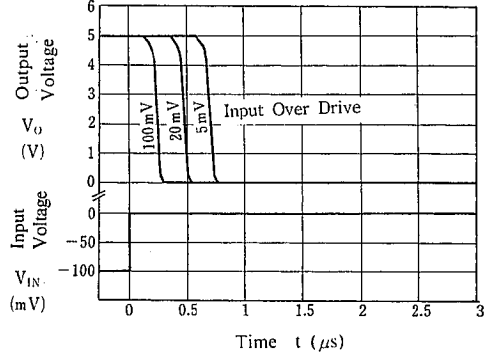
Response Time for Various Input Over Drives

($T_a = 25^\circ\text{C}$)



Response Time for Various Input Over Drives

($T_a = 25^\circ\text{C}$)



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MEMO

[CAUTION]

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