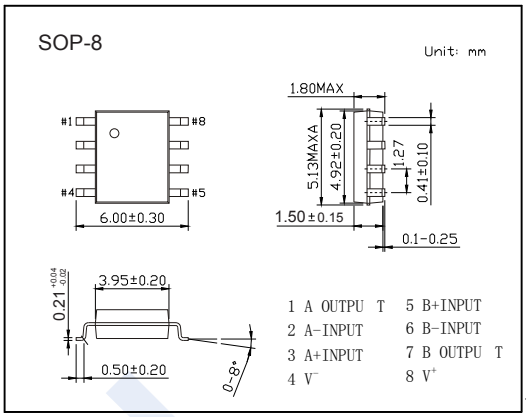
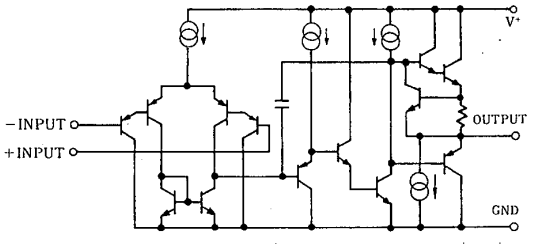
Single-Supply Dual Operating Comparators

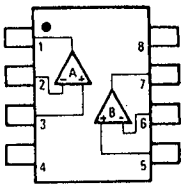
NJM2904 (KJM2904)



■ Features

- Operating Voltage :3V~32V
- Single Supply Operation
- Slew Rate
- Bipolar Technology





■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Supply Voltage	V_+	32 or ±16	V
Differential Input Voltage	V_{ID}	32	
Input Voltage	V_{IN}	-0.3 to 32	
Power Dissipation	P_D	300	mW
Junction Temperature	T_J	125	℃
Operating Temperature Range	T_{opr}	-40 to 85	
Storage Temperature range	T_{stg}	-50 to 125	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input Offset Voltage	V_{IO}	R_S= 0		2	7	mV
Input Commom Mode Voltage Range	V_{ICM}		0~3.5			V
Output Voltage Swing	V_{OM}	R_L=2kΩ	3.5			
Input Offset Current	I_{IO}			5	50	nA
Input Bias Current	I_B			25	250	
Output Sink Current	I_{SINK}	V_{IN}-=1V,V_{IN}+=0	8	20		mA
Output Source Current	I_{Source}	V_{IN}-=0,V_{IN}+=1V	20	30		
OPerating Current	I_{CC}	R_L=∞		0.7	1.2	mA
Leakage Signal Voltage Gain	A_V	R_L≥2kΩ		100		dB
Commom Mode Rejection Ratio	CMR			85		
Supply Voltage Rejection Ratio	SVR			100		
Channel Separation	CS	f=1K~20KHz,Input Referred		120		
Slew Rate	SR	V+/V-=±15		0.5		V/us
Unity Gain Bandwidth	f_T			0.2		MHz

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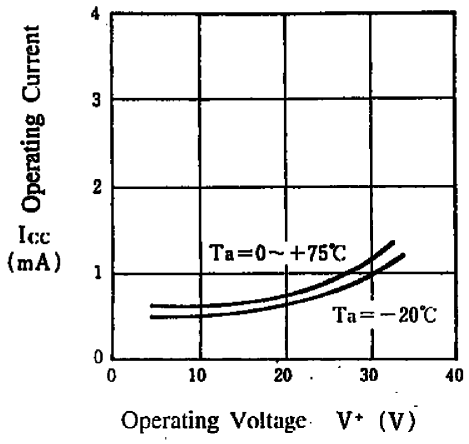
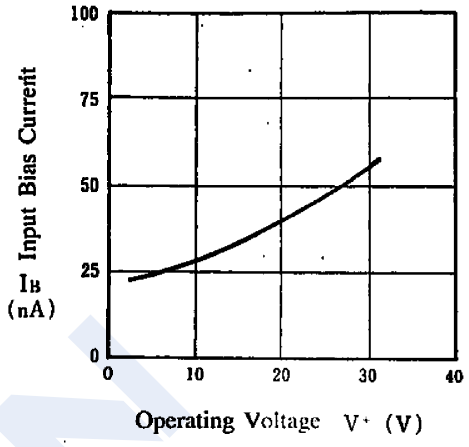
■ Typical Characterisitics

Operating Current vs. Operating Voltage



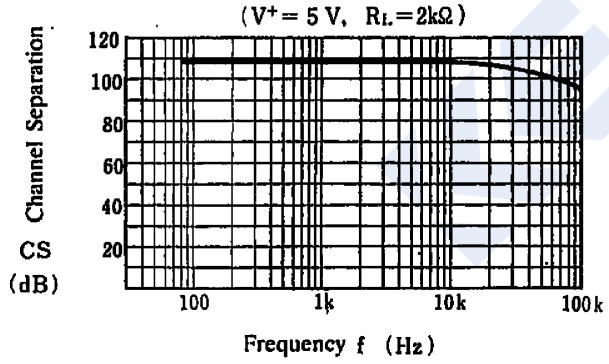
Input Bias Current vs. Operating Voltage

(Ta=25℃)



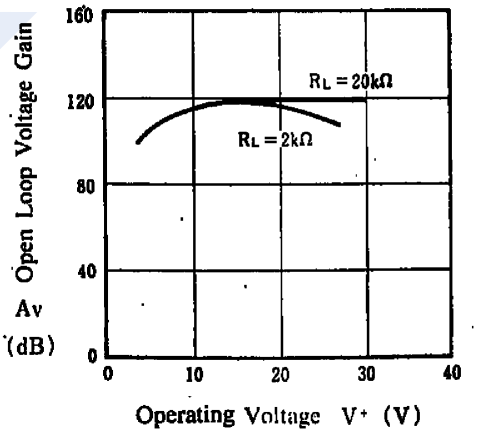
Channel Separation vs. Frequency

(V+= 5 V, RL=2kΩ)



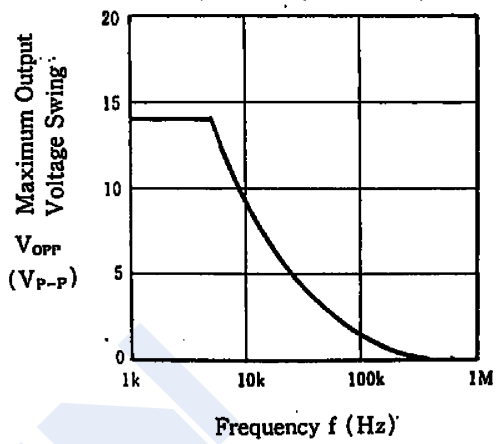
Voltage Gain vs. Operating Voltage

(Ta=25℃)



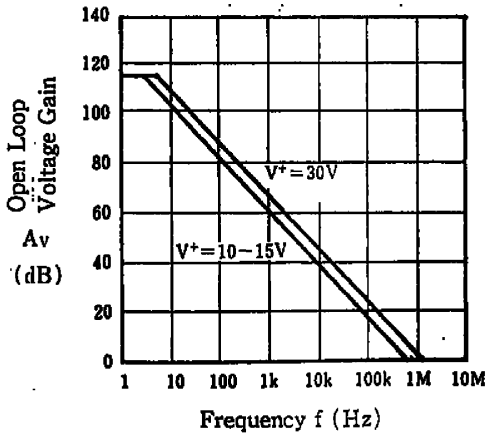
Maximum Output Voltage Swing vs. Frequency

(V+=15V, Ta=25℃)



Open Loop Voltage Gain vs. Frequency

(RL=∞, Ta=25℃)



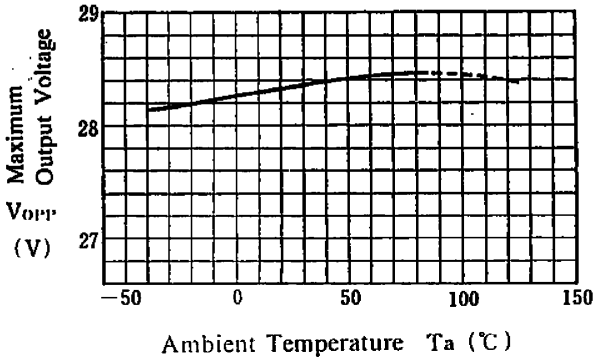
Single-Supply Dual Operating Comparators

NJM2904 (KJM2904)

■ Typical Characterisitics

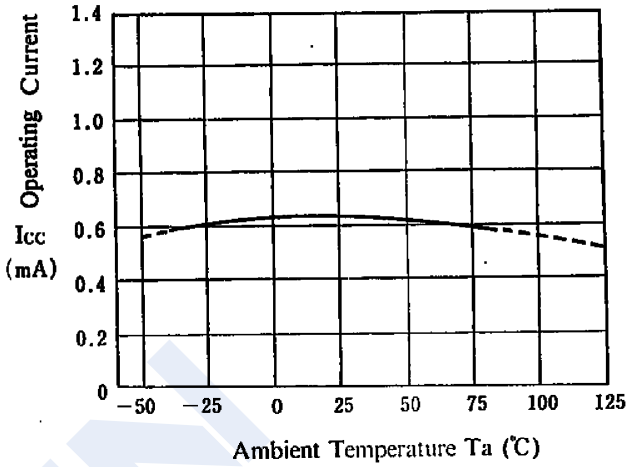
Maximum Output Voltage Swing vs. Temperatute

(V^+=30V, R_L=2kΩ)



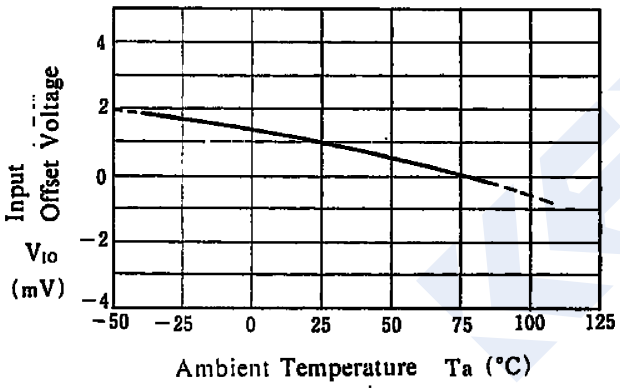
Operating Current vs. Temperature

(V^+=5V)



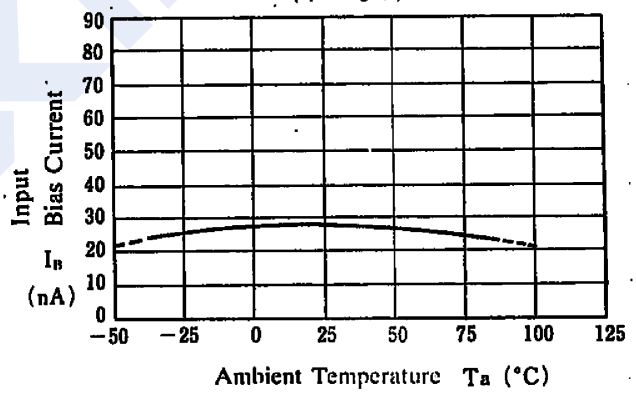
Input Offset Voltage vs. Temperature

(V^+= 5 V)



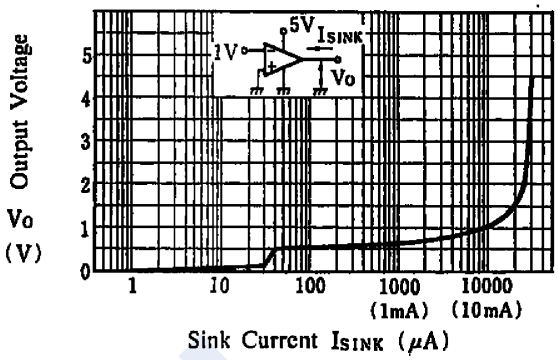
Input Bias Current vs. Temperature

(V^+= 5 V)



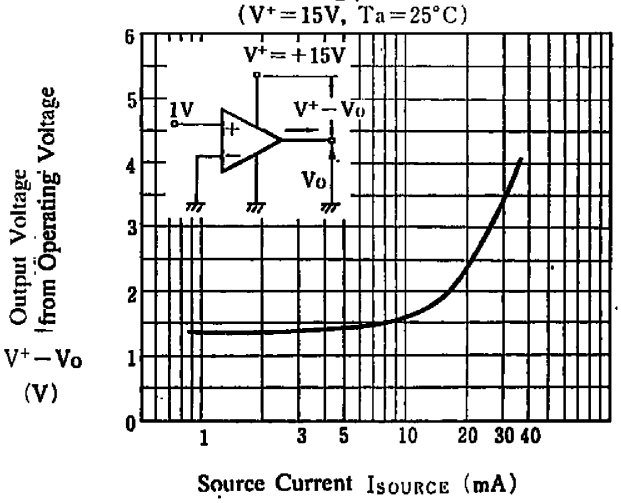
Output Voltage vs. Sink Current

(V^+=5V, Ta=25℃)



Source Current

(V^+=15V, Ta=25°C)

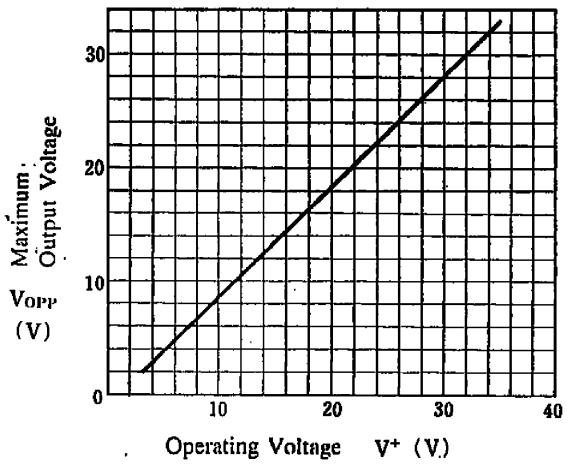


Single-Supply Dual Operating Comparators

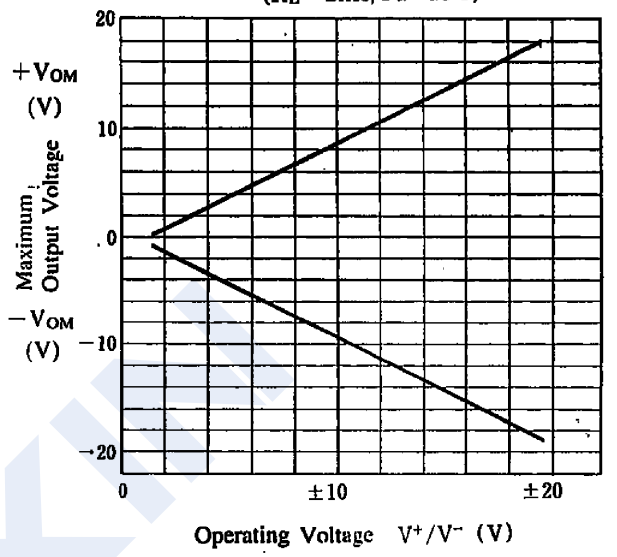
NJM2904 (KJM2904)

■ Typical Characterisitics

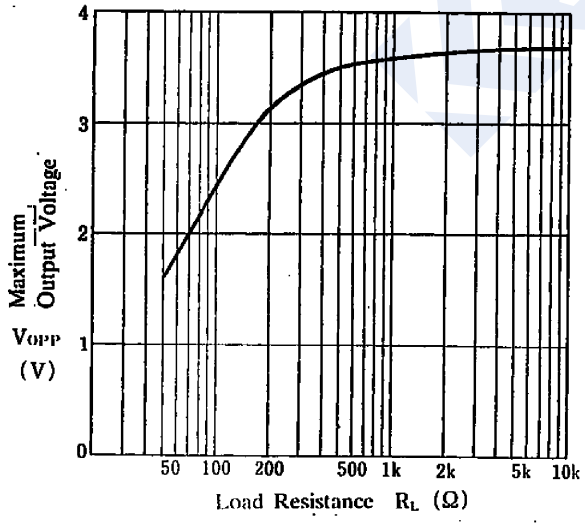
Maximum Output Voltage
(R_L =2kΩ, Ta=25°C)



Maximum Output Voltage vs. Operating Voltage
(R_L =2kΩ, Ta=25℃)



Maximum Output Voltage Swing vs. Load resistance
(V^+=5V, Ta=25℃)



Input Offset Voltage vs. Temperature
(V^+=5V)