

NJM2068

■ ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Supply Voltage	V ⁺ /V	±18	V
Differential Input Voltage Range	V _{ID}	±30	V
Common Mode Input Voltage Range	V _{IC}	±15 (Note1)	V
Power Dissipation	P _D	DIP8: 500 DMP8: 300 SSOP8: 250 SIP8: 800	mW
Operating Temperature Range	T _{opr}	-20~+75	°C
Storage Temperature Range	T _{stg}	-40~+125	°C

(Note1) For supply voltage less than ±15V, the absolute maximum input voltage is equal to supply voltage.

■ RECOMMENDED OPERATING VOLTAGE(Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage	V ⁺ /V		±4	-	±18	V

■ ELECTRICAL CHARACTERISTICS(V⁺/V=±15V, Ta=25°C, unless otherwise noted.)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Input Offset Voltage	V _{IO}	R _S ≤10kΩ	-	0.3	3	mV
Input Offset Current	I _{IO}		-	5	200	nA
Input Bias Current	I _B		-	150	1000	nA
Input Resistance	R _{IN}		50	300	-	kΩ
Voltage Gain	A _V	R _L ≥2kΩ, V _O =±10V	90	120	-	dB
Maximum Output Voltage	V _{OM}	R _L ≥2kΩ	±12	±13.5	-	V
Common Mode Input Voltage	V _{ICM}		±12	±13.5	-	V
Common Mode Rejection Ratio	CMR	R _S ≤10kΩ	80	110	-	dB
Supply Voltage Rejection Ratio	SVR	R _S ≤10kΩ	80	120	-	dB
Slew Rate	SR	R _L ≥2kΩ	-	6	-	V/μs
Gain Bandwidth Product1	G _{B1}	f=10kHz	-	27	-	MHz
Gain Bandwidth Product2	G _{B2}	f=100kHz	-	19	-	MHz
Unity Gain Frequency	f _T	A _V =1	-	5.5	-	MHz
Total Harmonic Distortion	THD	A _V =20dB, V _O =5V, R _L =2kΩ, f=1kHz	-	0.001	-	%
Equivalent Input Noise Voltage	V _{NI}	FLAT+JIS A, R _S =300Ω	-	0.44	0.56	μV
Supply Current	I _{CC}		-	5	8	mA

■ ELECTRICAL CHARACTERISTICS (D-Rank type(Note2), V⁺/V=±15V, Ta=25°C, unless otherwise noted.)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Equivalent Input Noise Voltage	V _{NI}	RIAA, R _S =2.2kΩ	-	-	1.4	μV

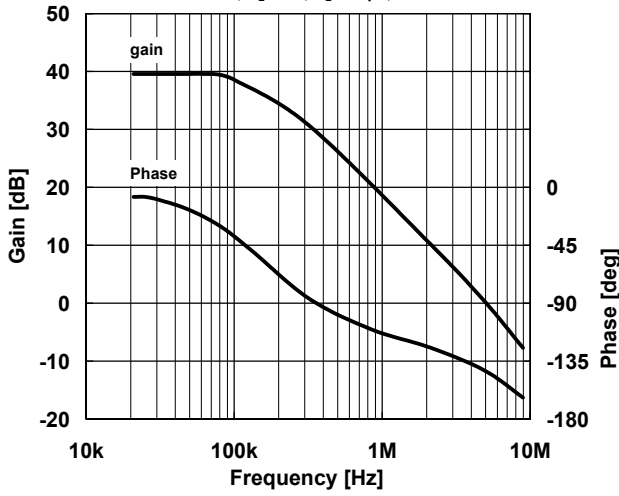
(Note2)D-rank type is a Equivalent Input Noise Voltage selected product. It s only DIP, DMP and SIP package.

■ NOTICE

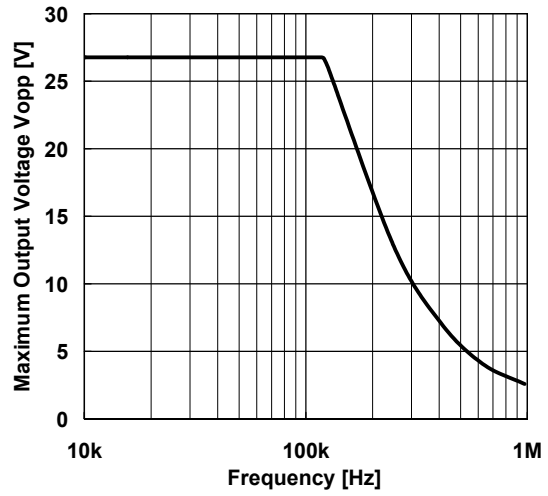
Oscillation might be caused when capacitor type load were connected. It is recommendable to insert series resistor (about 50Ω) at the output for preventing oscillation.

■ TYPICAL CHARACTERISTICS

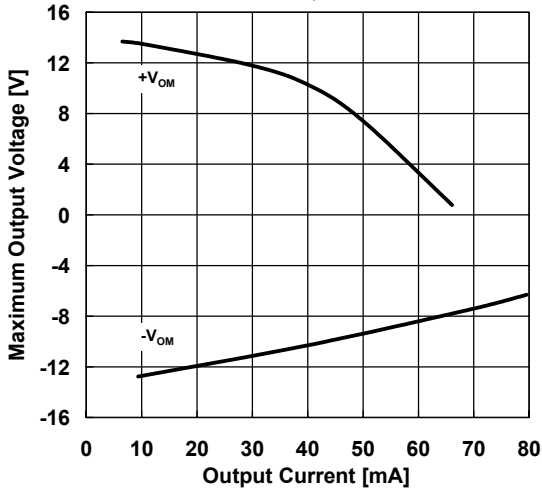
40dB Gain/Phase vs. Frequency
 $V^+ / V^- = \pm 15V, R_L = 2k\Omega, C_L = 100pF, T_a = 25^\circ C$



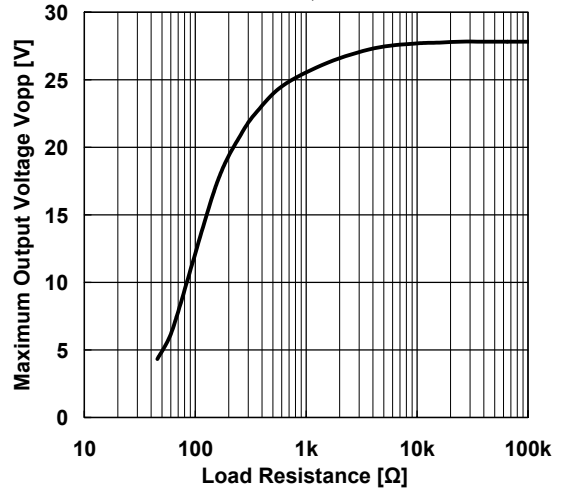
Maximum Output Voltage vs. Frequency
 $V^+ / V^- = \pm 15V, R_L = 2k\Omega, T_a = 25^\circ C$



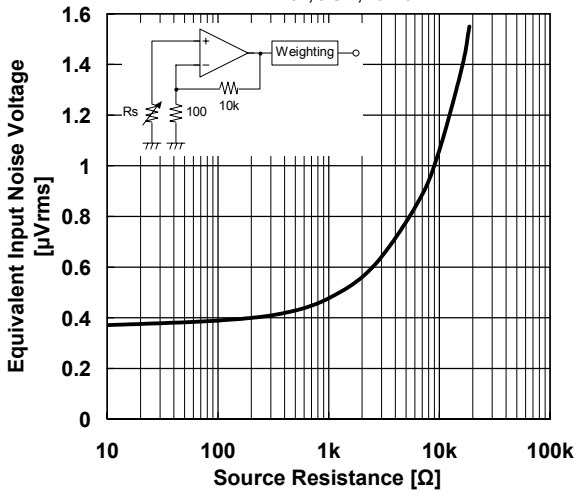
Maximum Output Voltage vs. Output Current
 $V^+ / V^- = \pm 15V, T_a = 25^\circ C$



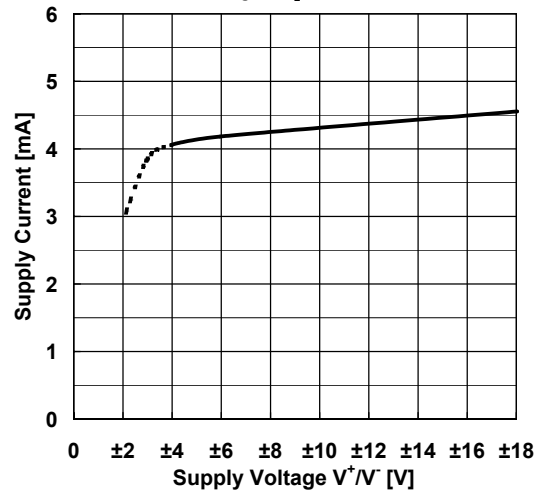
Maximum Output Voltage vs. Load Resistance
 $V^+ / V^- = \pm 15V, T_a = 25^\circ C$



Voltage Noises. Source Resistance
 $V^+ / V^- = \pm 15V, JIS A, T_a = 25^\circ C$

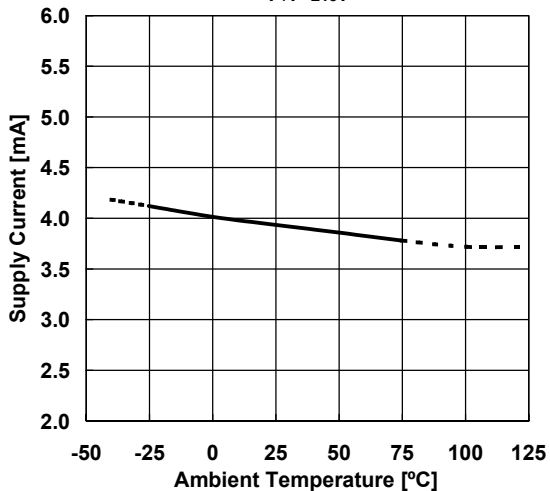


Supply Current vs. Supply Voltage
 No Signal, $R_L = \infty, T_a = 25^\circ C$

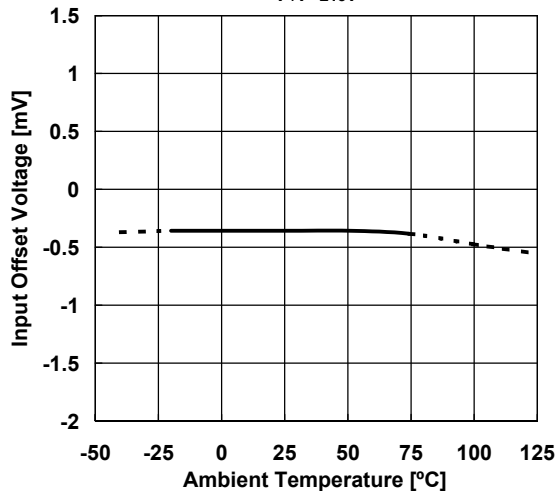


■ TYPICAL CHARACTERISTICS

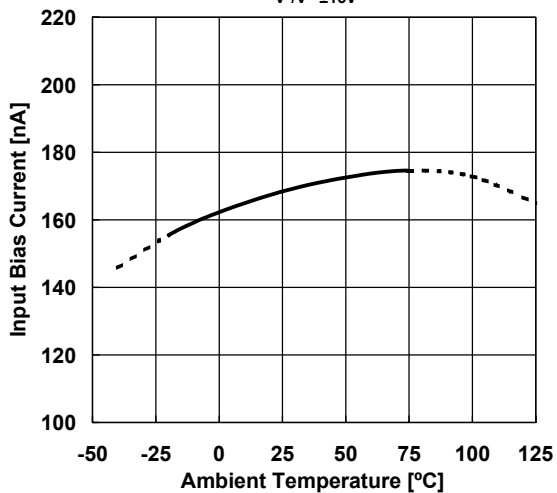
Supply Current vs. Temperature
 $V^+/V^-=\pm 15V$



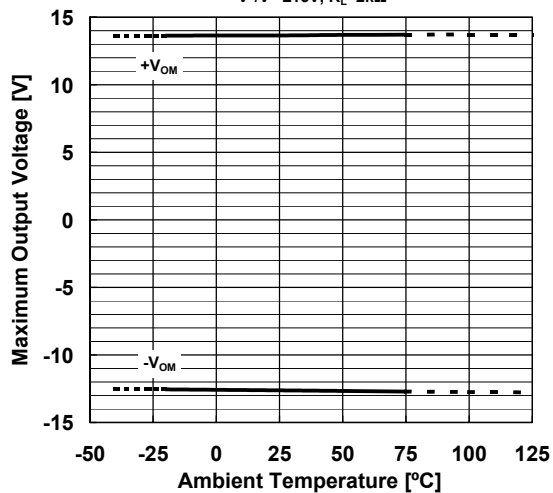
Input Offset Voltage vs. Temperature
 $V^+/V^-=\pm 15V$



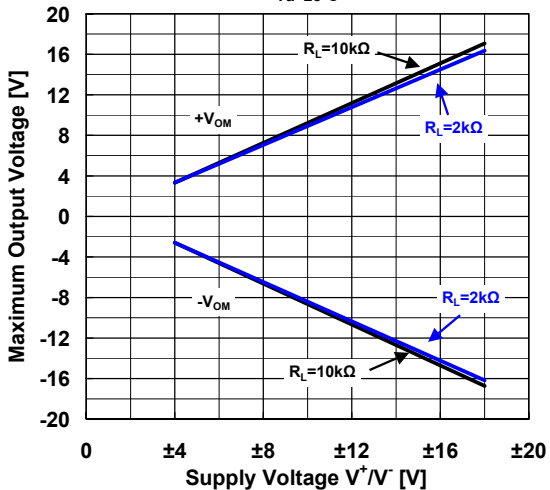
Input Bias Current vs. Temperature
 $V^+/V^-=\pm 15V$



Maximum Output Voltage vs. Temperature
 $V^+/V^-=\pm 15V, R_L=2k\Omega$

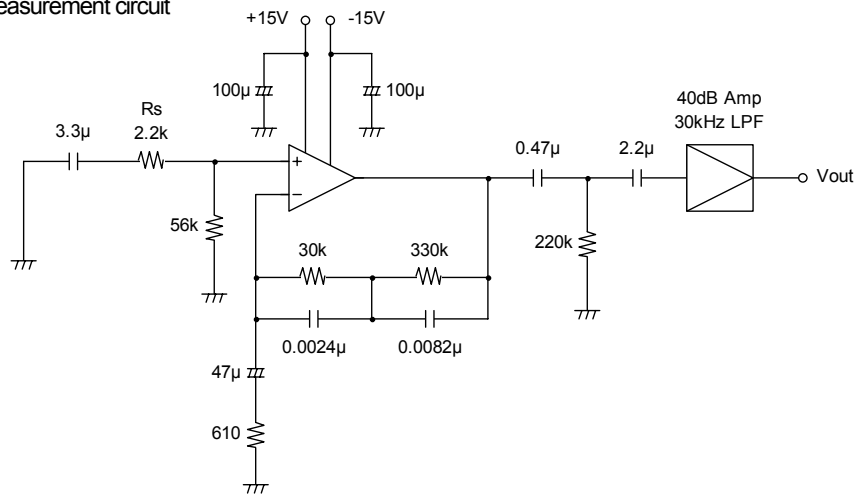


Maximum Output Voltage vs. Supply Voltage
 $T_a=25^\circ C$



■ TEST CIRCUIT

Noise Voltage (RIAA) measurement circuit



[CAUTION]

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