

## SINGLE SUPPLY HI-SLEW RATE SINGLE OPERATIONAL AMPLIFIER

### ■ GENERAL DESCRIPTION

The NJM2716 is single supply single high slew rate operational amplifier.

It is applicable to A/D converters, FAX, scanner which require the single supply operation and high slew rate.

### ■ PACKAGE OUTLINE

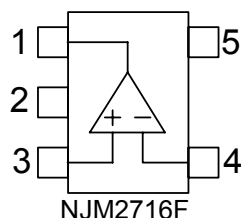


NJM2716F

### ■ FEATURES

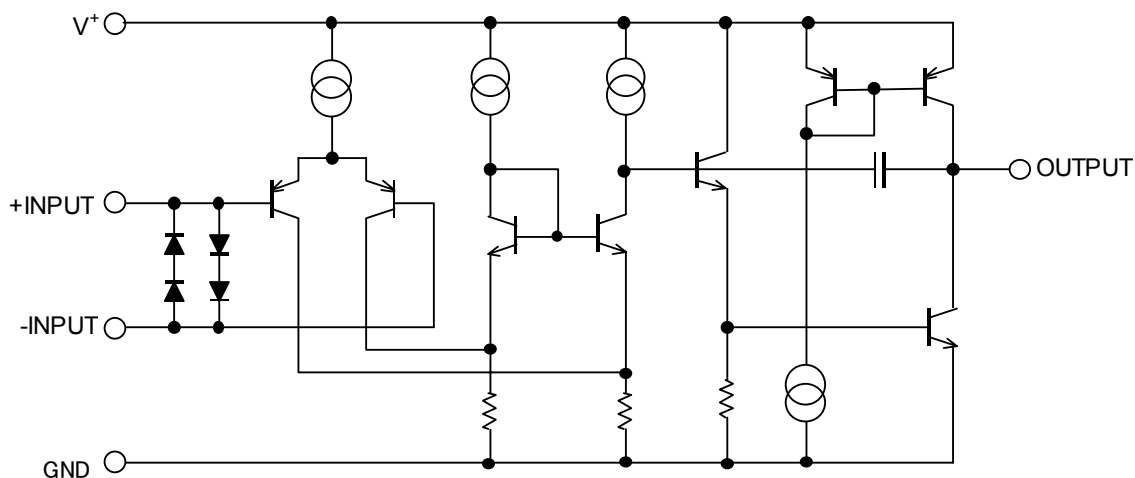
- Single Supply
- Operating Voltage +2.7V to 12V
- Operating Current 5.5mA max.
- High Slew Rate 40V/μs typ.
- Bipolar Technology μ
- Package Outline MTP5

### ■ PIN CONFIGURATION



PIN FUNCTION  
 1.OUTPUT  
 2.GND  
 3.+INPUT  
 4.-INPUT  
 5.V<sup>+</sup>

### ■ EQUIVALENT CIRCUIT



# NJM2716

## ■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

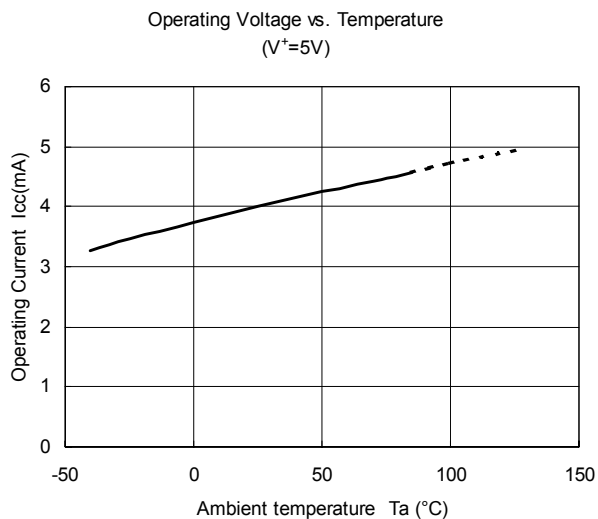
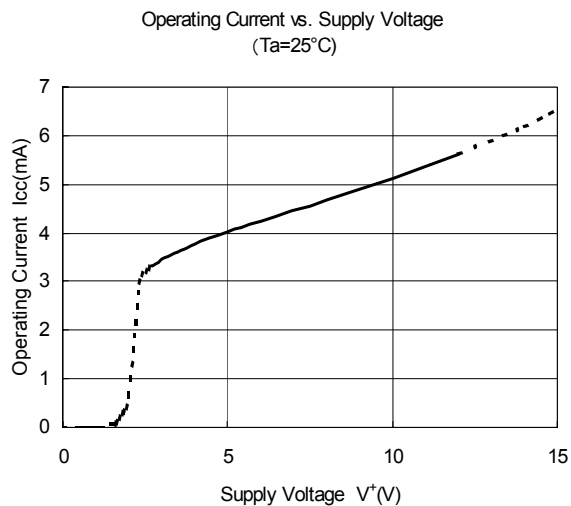
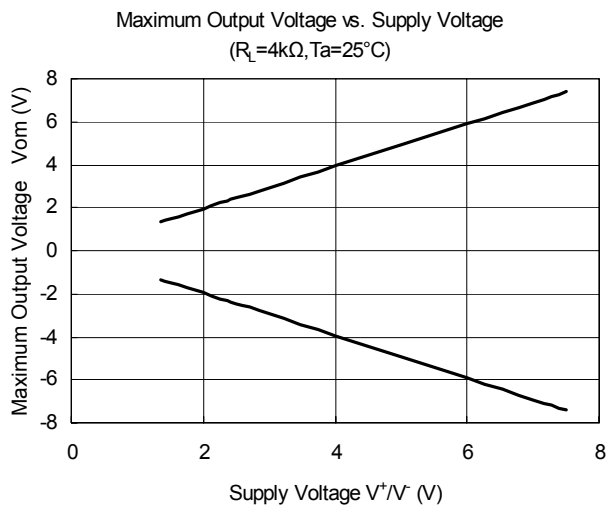
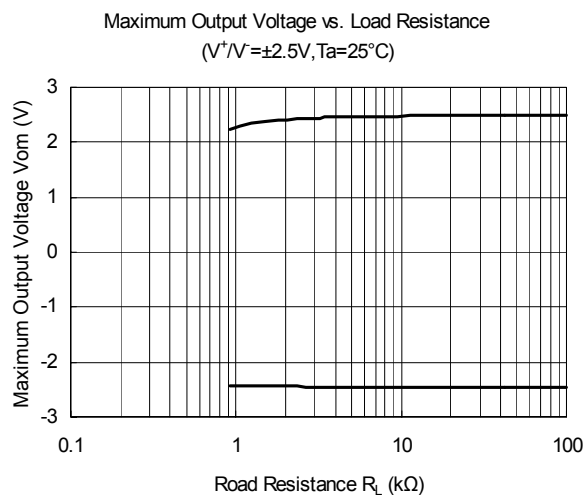
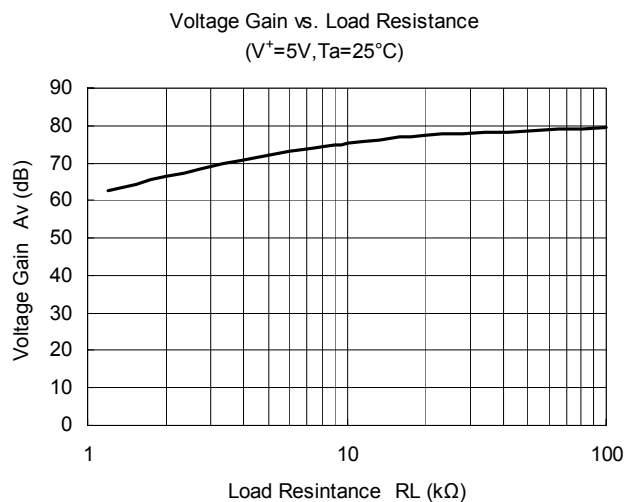
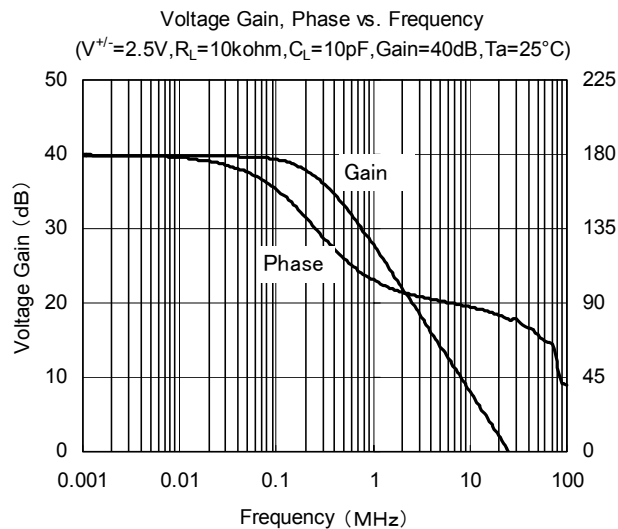
PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V <sup>+</sup>	15.0	V
Power Dissipation	P <sub>D</sub>	200	mW
Differential Input Voltage	V <sub>ID</sub>	±3	V
Input Voltage	V <sub>IC</sub>	-0.3 to +15 (note)	V
Output Sink Current	I <sub>SINK</sub>	10	mA
Operating Temperature Range	T <sub>opr</sub>	-40 to +85	°C
Storage Temperature Range	T <sub>stg</sub>	-40 to +125	°C

(note) When supply voltage is less than 15V, the absolute maximum input voltage is equal to the supply voltage.

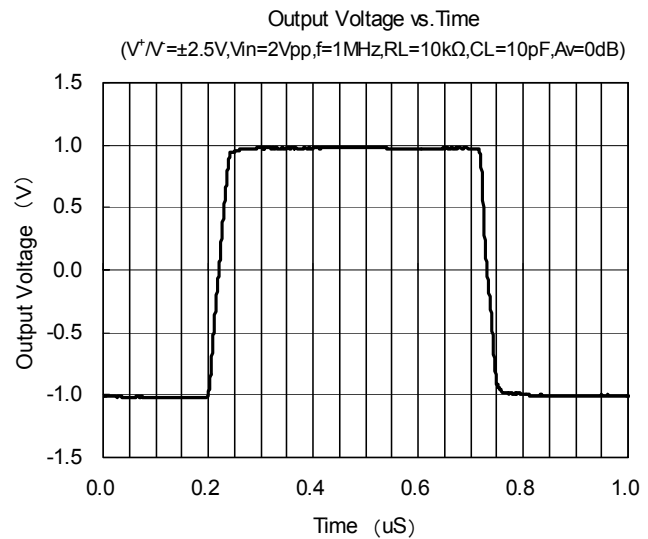
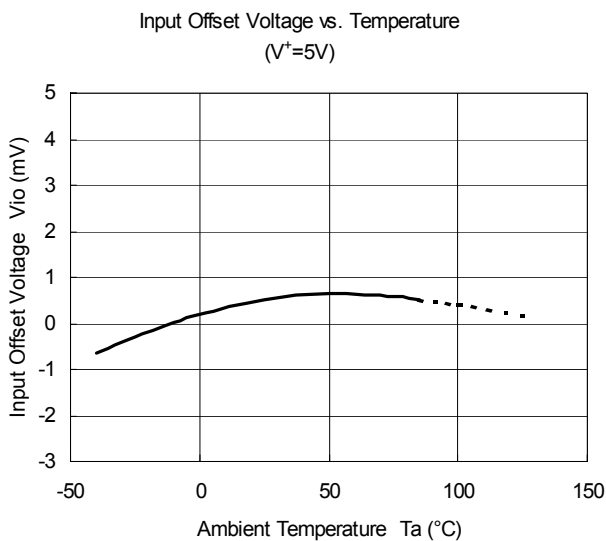
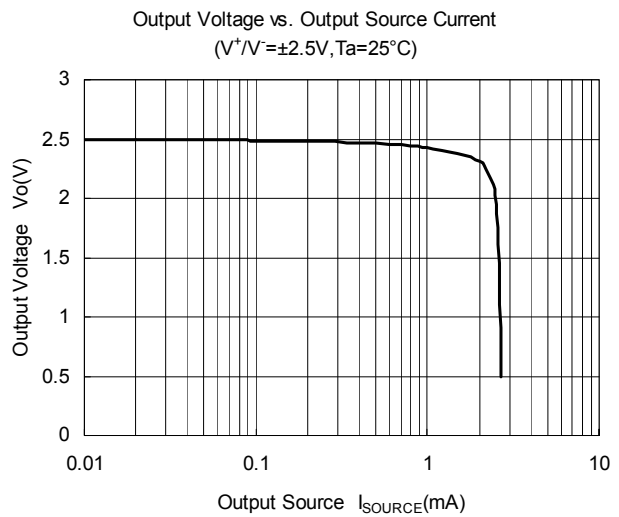
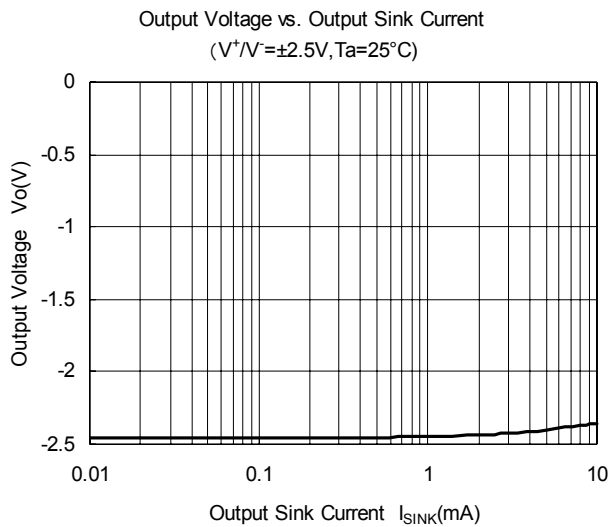
## ■ ELECTRICAL CHARACTERISTICS (V<sup>+</sup>=5V, Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Input Offset Voltage	V <sub>IO</sub>	Rs=0Ω	-	1	10	mV
Input Offset Current	I <sub>IO</sub>		-	0.2	0.5	μA
Input Bias Current	I <sub>B</sub>		-	1	2.5	μA
Voltage Gain	A <sub>V</sub>	R <sub>L</sub> ≥10kΩ	60	75	-	dB
Input Common Mode Voltage Range	V <sub>ICM</sub>		0 to 3.8	-	-	V
Common Mode Rejection Ratio	CMR		45	80	-	dB
Supply Voltage Rejection Ratio	SVR		50	75	-	dB
Maximum Output Voltage 1	V <sub>OM</sub> <sup>+1</sup>	R <sub>L</sub> =4kΩ to GND	4.3	4.5	-	V
	V <sub>OM</sub> <sup>-1</sup>		-	0.05	0.1	
Maximum Output Voltage 2	V <sub>OM</sub> <sup>+2</sup>	R <sub>L</sub> =4kΩ to 2.5V	4.5	4.7	-	V
	V <sub>OM</sub> <sup>-2</sup>		-	0.1	0.5	
Output Source Current	I <sub>SOURCE</sub>		1	2.5	-	mA
Output Sink Current	I <sub>SINK</sub>		2.5	5	-	mA
Operating Current	I <sub>CC</sub>	R <sub>L</sub> =∞	-	4.2	5.5	mA
Slew Rate	SR		-	40	-	V/μs
Unity Gain Bandwidth	f <sub>T</sub>		-	30	-	MHz

## ■ TYPICAL CHARACTERISTICS



## ■ TYPICAL CHARACTERISTICS



# MEMO

[CAUTION]  
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