

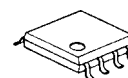
ULTRA HIGH SPEED SINGLE OPERATIONAL AMPLIFIER

■GENERAL DESCRIPTION

The **NJM2720** is an ultra high speed single operational amplifier. It can swing 250V/ μ s high slew rate, and 75-ohm load drive is possible at supply voltage of ± 2.5 V.

It is suitable for pulse amplifiers, D/A current to voltage conversion, digital communication, video signal processing, line buffer, and cable drivers.

■PACKAGE OUTLINE

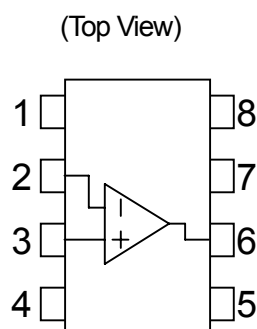


NJM2720E

■FEATURES

- Operating Voltage $(\pm 2.5$ V to ± 5 V)
- Supply Current (9.0mA Typ.)
- High Slew Rate (250V/ μ s Typ.)
- Unity Gain Frequency (120MHz Typ.)
- Input Offset Voltage (1.5mV Typ.)
- Output Voltage (V_{OH} : +1.4V Typ. (@ $V^+/V^- = \pm 2.5$ V, $R_L = 150\Omega$))
(V_{OL} : -1.4V Typ. (@ $V^+/V^- = \pm 2.5$ V, $R_L = 150\Omega$))
- Package Outline EMP8

■PIN CONFIGURATION



PIN FUNCTION

- 1.NC
- 2.-INPUT
- 3.+INPUT
- 4.V-
- 5.NC
- 6.VOUT
- 7.V+
- 8.NC

NJM2720

PRELIMINARY

■ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V^+/V^-	± 5.5	V
Differential Voltage	V_{ID}	± 3	V
Input Voltage	V_{ICM}	± 5.5	V
Power Dissipation	P_D	300	mW
Operating Temperature Range	T_{opr}	-40 to +85	°C
Storage Temperature Range	T_{stg}	-40 to +125	°C

■RECOMMENDED OPERATING CONDITION

(Ta=25°C)

PARAMETER	SYMBOL	CONDITION	UNIT
Supply Voltage	V^+/V^-	± 2.5 to ± 5	V

■ELECTRICAL CHARACTERISTICS

● DC CHARACTERISTICS

($V^+/V^- = \pm 2.5V$, Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Operating Current	I_{CC}	No Signal	-	9.0	15.0	mA
Input Offset Voltage	V_{IO}		-	1.5	16	mV
Input Bias Current	I_B		-	7.5	30	μA
Input Offset Current	I_{IO}		-	150	900	nA
Voltage Gain	A_V	$R_L = 2k\Omega$	50	60	-	dB
Input Common Mode Voltage Range	V_{ICM}		+1.7	+2.0	-	V
			-1.2	-1.5	-	
Common Mode Rejection Ratio	CMR	$-12V \leq V_{ICM} \leq +1.7V$	60	80	-	dB
Supply Voltage Rejection Ratio	SVR	$\pm 2.5V \leq V^+/V^- \leq \pm 4.5V$, $R_L = 2k\Omega$	55	65	-	dB
Maximum Output Voltage	V_{OH}	$R_L = 150\Omega$	+1.2	+1.4	-	V
	V_{OL}	$R_L = 150\Omega$	-1.2	-1.4	-	

● AC CHARACTERISTICS

($V^+/V^- = \pm 2.5V$, Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Unity Gain Frequency	f_T	$A_V = 40dB$, $R_F = 198k\Omega$, $R_G = 20\Omega$ $R_L = \infty$, $C_L = 5pF$	-	120	-	MHz
Phase Margin	Φ_M	$A_V = 40dB$, $R_F = 198k\Omega$, $R_G = 20\Omega$ $R_L = \infty$, $C_L = 5pF$	-	60	-	Deg

● TRANSIENT CHARACTERISTICS

($V^+/V^- = \pm 2.5V$, Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Slew Rate	SR	$A_V = 0dB$, $R_F = 0\Omega$, $R_G = \infty$ $R_L = 150\Omega$, $C_L = 5pF$, $V_{in} = 2V_{pp}$	-	250	-	V/ μs

[CAUTION]

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