

NJM2770

■ ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	V ⁺	+5	V
Power Dissipation	P _D	(MSOP8 (VSP8), MSOP8 (TVSP8)) 400	mW
Operating Temperature Range	Topr	-40 to +85	°C
Storage Temperature Range	Tstg	-40 to +150	°C

■ ELECTRICAL CHARACTERISTICS (V⁺=3.0V, R_L=8Ω, f=1kHz, 1pin=2V, Ta=25°C, unless otherwise specified)

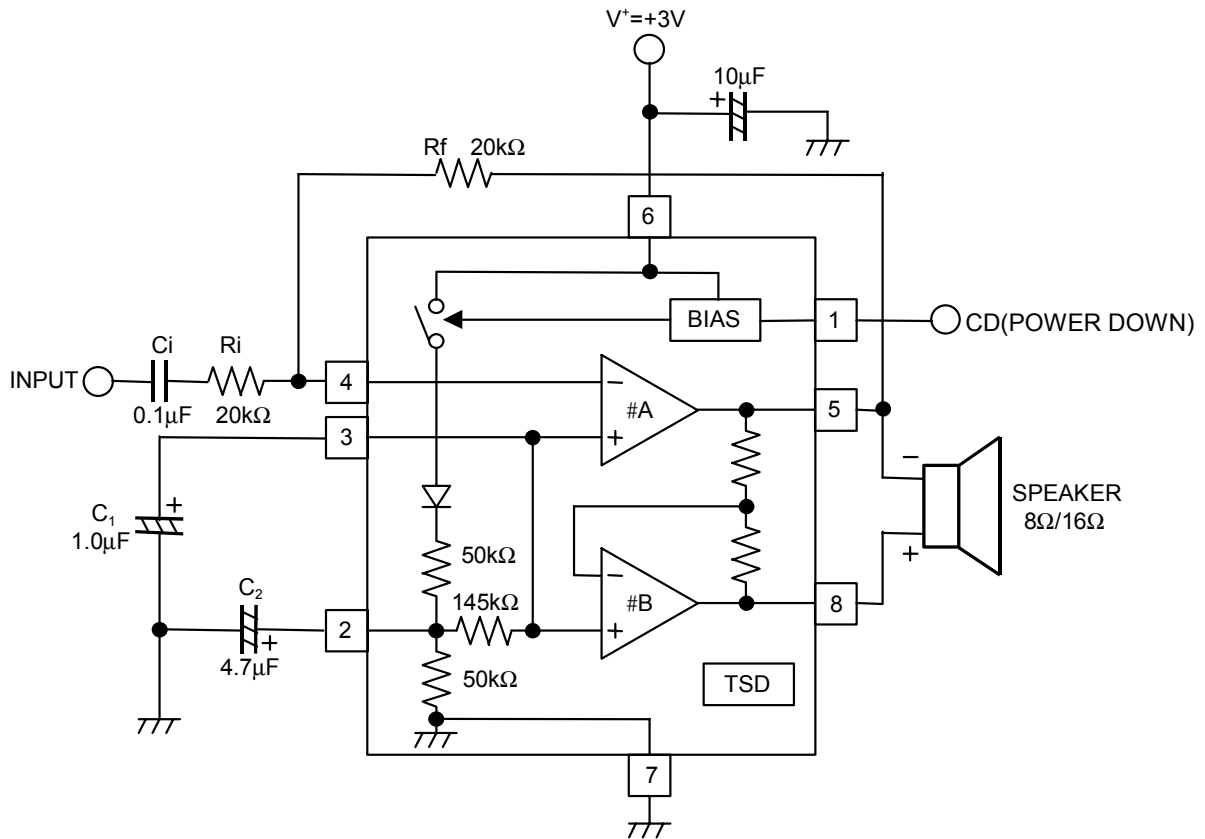
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Voltage Range	V ⁺		2.0	-	4.5	V
Operating Current	I _{CC}	R _L =∞, no signal	-	2.0	4.0	mA
Power Down Current	I _{CCD}	R _L =∞ 1pin=0.8V, no signal	-	0.1	1.0	μA
Open Loop Gain	A _{V1}	Amp#A, f<100Hz	80	85	-	dB
Closed Loop Gain	A _{V2}	Amp#B	-0.35	0	+0.35	dB
Output Power	P _{O1}	THD=10%	110	250	-	mW
	P _{O2}	V ⁺ =4.5V, R _L =16Ω, THD=10%	200	400	-	mW
Total Harmonic Distortion	THD1	P _O =100mW, G _{VD} =6dB	-	0.1	0.5	%
	THD2	V ⁺ =4.5V, R _L =16Ω, P _O =150mW, G _{VD} =6dB	-	0.1	-	%
Power Supply Rejection Ratio (V ⁺ =3.0V-4.5V)	SVR1	C1=∞, C2=0.01μF, DC	50	-	-	dB
	SVR2	C1=0.1μF, C2=0	-	35	-	dB
	SVR3	C1=1.0μF, C2=4.7μF	-	70	-	dB
Mute Attenuation	MAT	f=1kHz-20kHz, 1pin=0.8V	-	80	-	dB
Output Voltage (R _f =20kΩ, DC)	V _{O1}		0.95	1.10	1.25	V
	V _{O2}	V ⁺ =4.5V, R _L =16Ω	-	1.85	-	V
Output High Level	V _{OH}	I _{OUT} =-75mA, V ⁺ =2.0-4.5V	-	V ⁺ -1.0	-	V
Output Low Level	V _{OL}	I _{OUT} =75mA, V ⁺ =2.0-4.5V	-	0.21	-	V
Output DC Offset	ΔV _O	R _f =20kΩ, 5pin-8pin	-30	0	+30	mV
Input Bias Current	I _B	4pin	-100	-	100	nA
Equivalent Resistance	R _{+IN}	3pin	100	170	220	kΩ
	R _{REF}	2pin	18	26	40	kΩ
CD Input Voltage H	V _{CDH}	1pin	2.0	-	V ⁺	V
CD Input Voltage L	V _{CDL}	1pin	0.0	-	0.8	V
CD Input Resistance	R _{CD}	V ⁺ =V _{CD} =4.5V, 1pin	50	85	175	kΩ

■ CONTROL TERMINAL EXPLANATION

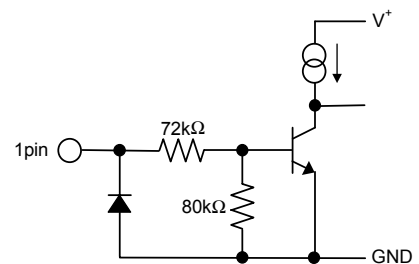
CHIP DISABLE CONTROL(CD PIN)

PARAMETER	CONTROL SIGNAL	STATUS
CD OFF	H(=V _{CDH})	IC is active.
CD ON	L(=V _{CDL})	IC is standby. (with Mute)

APPLICATION CURCUIT



- note: 1. The CD terminal (1pin) should connect High level (>2.0V), when NJM2770 is active.
 The standby mode, when the CD terminal is Low level (<0.8V).
 2. To add the C1 and C2 capacitor, the power-supply-rejection-ratio will be improved.
 When C1 is large value, C2 will be unnecessary.
 3. The power-up time depend on the C1 and C2 capacitor.
 4. The input current of CD terminal is as shown below figure.



5. No connect oscillation-protect RC required.
 To connect oscillation-protect RC, if the NJM2770 oscillate with PC board/stray capacitor/long speaker wire and others condition.

MEMO

[CAUTION]

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