



**■ ABSOLUTE MAXIMUM RATINGS**

(Ta=25°C)

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

**■ ELECTRICAL CHARACTERISTICS** (V<sup>+</sup>=3.0V, R<sub>L</sub>=8Ω, f=1kHz, 1pin=2V, Ta=25°C, unless otherwise specified)

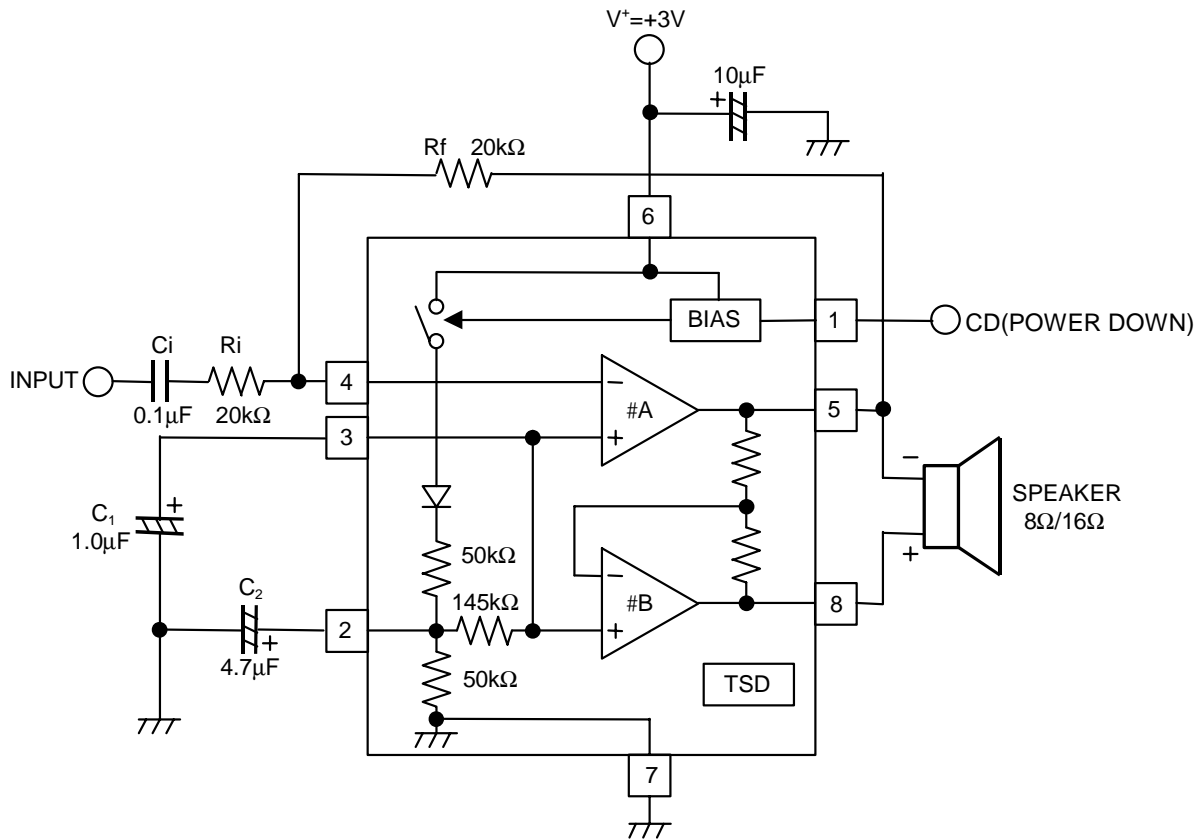
PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Operating Voltage Range	V <sup>+</sup>		2.0	-	4.5	V
Operating Current	I <sub>CC</sub>	R <sub>L</sub> =∞, no signal	-	2.0	4.0	mA
Power Down Current	I <sub>CCD</sub>	R <sub>L</sub> =∞ 1pin=0.8V, no signal	-	0.1	1.0	μA
Open Loop Gain	A <sub>V1</sub>	Amp#A,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

**■ CONTROL TERMINAL EXPLANATION**

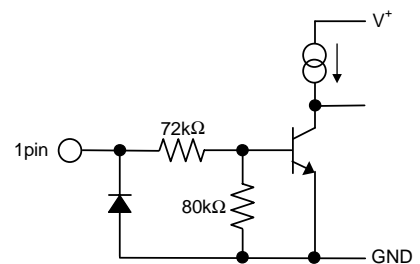
CHIP DISABLE CONTROL(CD PIN)

PARAMETER	CONTROL SIGNAL	STATUS
CD OFF	H(=V <sub>CDH</sub> )	IC is active.
CD ON	L(=V <sub>CDL</sub> )	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 vaiue, 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]**

The specifications on this databook are only given for information , without any guarantee as regards either mistakes or omissions. The application circuits in this databook are described only to show representative usages of the product and not intended for the guarantee or permission of any right including the industrial rights.