NJM 2404

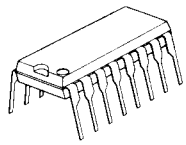
NJM2404 is 3/4 wired remote controller integrated circuit for tape player.

NJM2404 consist of the compartor for 3/4 wired with REF and the section which amplifier and rectifier P.B. Amp. output signal.

■ Absolute Maximum Ratings (Ta=25°C)

Supply Voltage	V^+	12V
Input Voltage	V_I	−0.3~+12V
Power Dissipation	P_D	700mW
Operating Temperature Range	T_{opr}	−20~+75°C
Storage Temperature Range	T_{stg}	−40~+125°C

■ Package Outline



NJM 2404 D

■ Electrical Characteristics

Comparator Section (Ta=25°C, V^+=10V)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Threshold Voltage1	V_{T1}	R_L=100kΩ, Output Pin 12, Input Pin 16	0.95	1.08	1.34	V
Threshold Voltage 2	V_{T2}	R_L=100kΩ, Output Pin 13, Input Pin 16	2.85	3.10	3.40	V
Threshold Voltage 3	V_{T3}	R_L=100kΩ, Output Pin 14, Input Pin 16	4.98	5.30	5.65	V
Threshold Voltage 4	V_{T4}	R_L=100kΩ, Output Pin 15, Input Pin 16	7.18	7.45	7.77	V
Threshold Voltage 5	V_{T5}	R_L=100kΩ, Output Pin 4, Input Pin 1	6.25	6.55	6.84	V
Threshold Voltage 6	V_{T6}	R_L=100kΩ, Output Pin 3, Input Pin 1	7.45	7.70	7.95	V
Threshold Voltage 7	V_{T7}	R_L=100kΩ, Output Pin 2, Input Pin 1	8.61	8.85	9.11	V
Hysterisis Voltage	V_{TH}	$\lvert V_T(OFF\rightarrow ON)-V_T(ON\rightarrow OFF)\rvert$	—	0.2	0.4	V
Output Tx. Saturation Voltage	V_{osat}	I_{SINK}=1mA	—	0.2	0.4	V
Output Tx. Leakage Current	I_{OFF}	V_O=10V	—	—	1	μA
Output Tx. Sink Current	I_{SINK}	V_O=1.5V	4	10	—	mA
Supply Current 1	$I_{CC}1$	R_L=100kΩ, Output OFF (Pin 5)	—	3	5	mA

Amplifier Section

Input Resistance	R_{IN}	V_{IN}=10mVrms, f=1kHz	16	24	32	kΩ
Voltage Gain	V_{IN}	V_O=3.5V, f=3kHz	1.03	1.46	2.06	mVrms
Crosstalk	C.R.	V_{IN}=77.5mV, f=1kHz, R_{IN}=2kΩ	—	−90	−70	dB
Supply Current 2	$I_{CC}2$	No Signal (Pin 8)	—	4	6	mA

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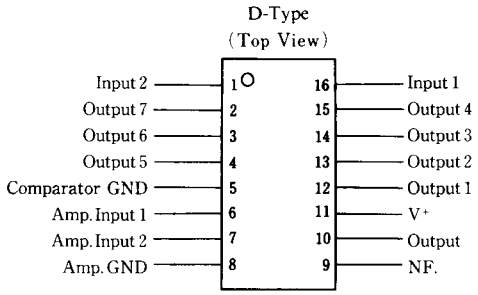
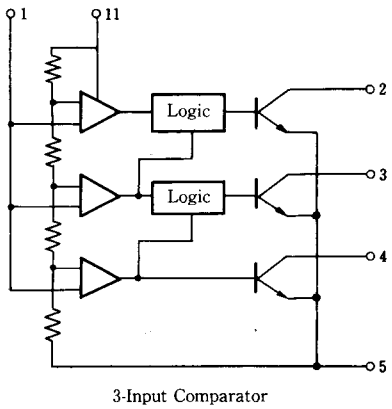
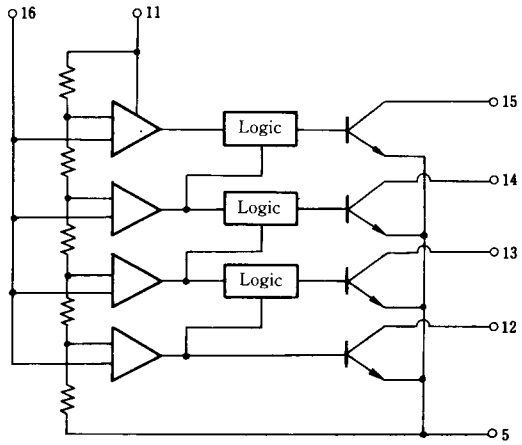
■ Connection Diagram



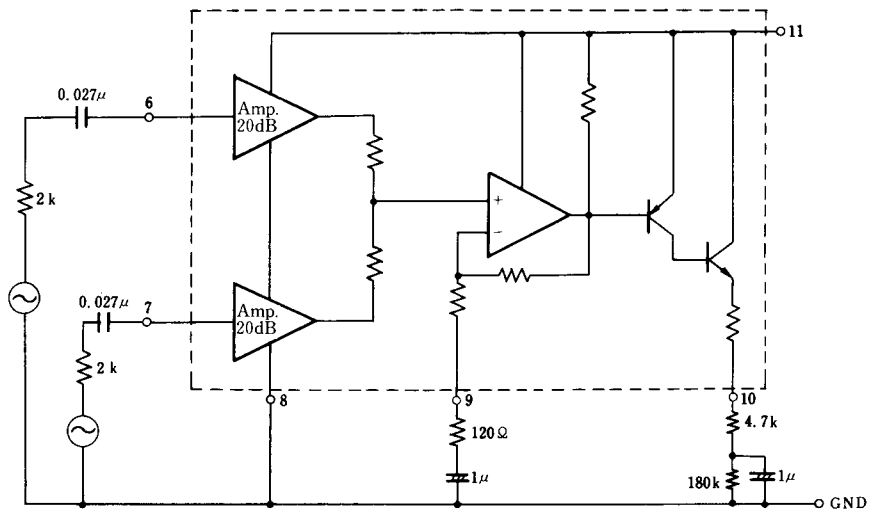
■ Block Diagram



3-Input Comparator



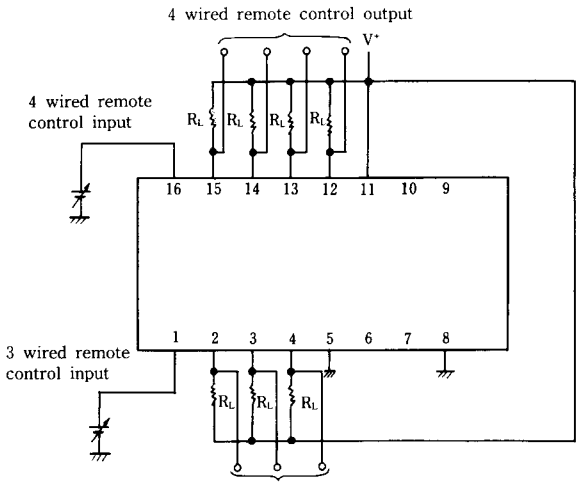
4-Input Comparator



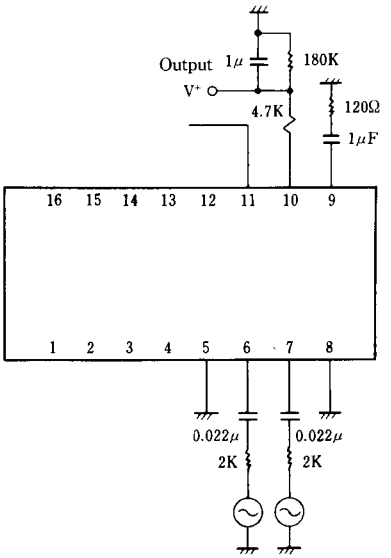
Amp. Section

Use the external constant as a measuring constant.

■ Test Circuit

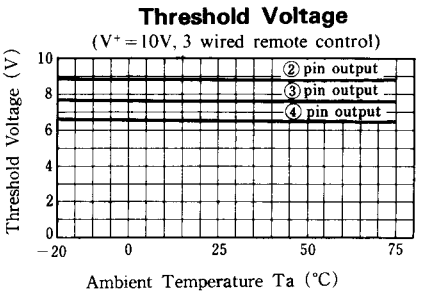


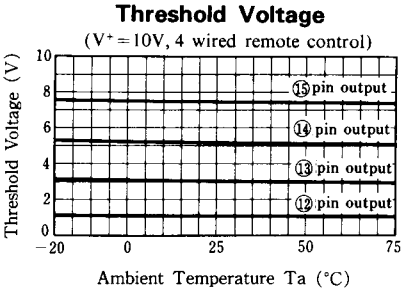
.3/4 wired remote control test circuit



AMS amp test circuit

■ Typical Characteristics





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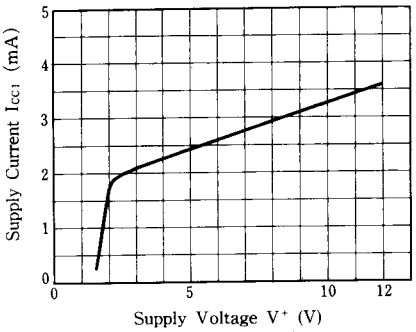
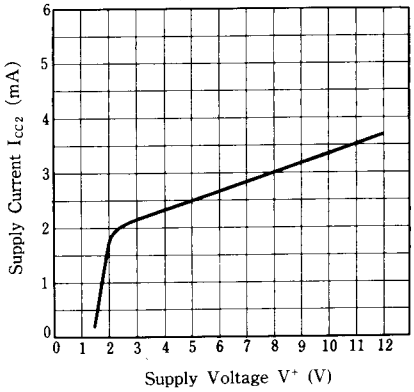
■ Typical Characteristics

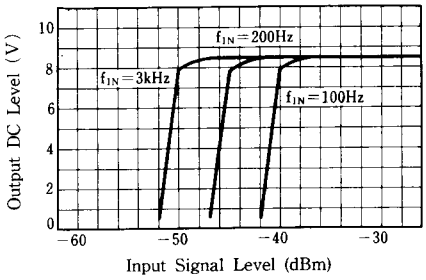
Supply Current 1 (Comp. Sec.)
(Ta=25°C)



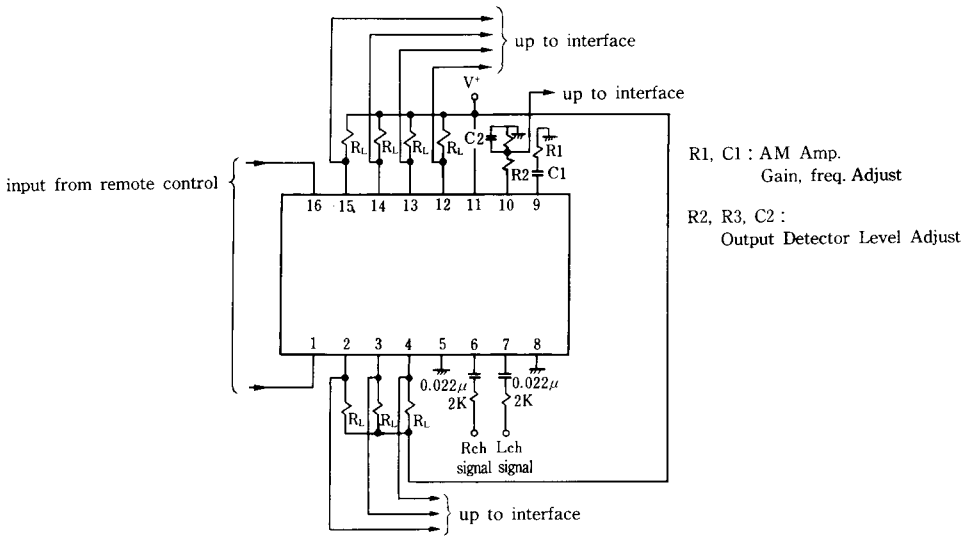
Supply Current 2 (Amp.Sec.)
(Ta=25°C)



Input Signal Level vs. Output Level (Amp. Sec.)
(Ta=25°C)



■ Typical Application



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