

INFRARED REMOTE CONTROL RECEIVER

■ GENERAL DESCRIPTION

NJL69V000A series are small and high performance receiving devices for infrared remote control system. The pulse width of NJL69V000A series is stable relating to commander's power or distance between transmitter and receiver. NJL69V000A series have long lead to meet the various applications.

■ FEATURES

1. Small molding package
2. Long lead 24mm
3. Line-up for various center carrier frequencies

■ APPLICATIONS

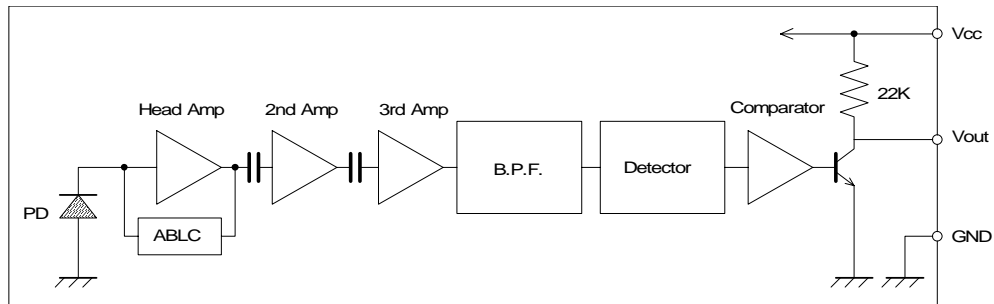
1. AV instruments such as Audio, TV, VCR, CD, MD, DVD, STB etc.
2. Home application such as Air-conditioner, Fan etc.
3. The other equipments with wireless remote control.

■ LINE-UP

Carrier Frequency	
Fo=36 kHz	NJL69V360A
36.7 kHz	NJL69V367A
38 kHz	NJL69V380A
40 kHz	NJL69V400A
56.8 kHz	NJL69V568A

Regarding the other frequencies or packages, please contact to New JRC individually.

■ BLOCK DIAGRAM



■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Supply Voltage	Vcc	6.3	V
Operating Temperature Range	Topr	-30 to +85	°C
Storage Temperature Range	Tstg	-40 to +85	°C
Soldering Temperature	Tsol	260 (5sec. 4.0mm from mold body)	°C

RECOMMENDED OPERATING CONDITION

Supply Voltage Range V_{cc} 4.5 V to 5.5V

ELECTRO-OPTICAL CHARACTERISTICS ($V_{cc}=5.0V, T_a=25^\circ C$)

PARAMETER	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Supply Current	I_{cc}	No Signal Input	—	1.0	3.0	mA
Transmission Distance	L_c	Direction of Ray Axis *1	13	18	—	m
Directivity	θ	Angle of half L_c	—	40	—	deg
Output Voltage Low	V_L	No Load	—	0.2	0.5	V
Output Voltage High	V_H	No Load	4.5	—	—	V
Low Level Pulse Width	T_{wL}	See Test Circuit	400	—	800	μs
High Level Pulse Width	T_{wH}	See Test Circuit	400	—	800	μs
Center Frequency	F_o	See Line-up	36.0	—	40.0	kHz

Note *1: Test with each center carrier frequency under the test condition shown below.

TEST METHOD

Test condition is as follows:

(1) Standard transmitter:

Transmitting waveform is shown in Fig.1
 Transmitting power should be adjusted so that output voltage V_{out} will be 400mVp-p. (Test circuit is shown in Fig.2)
 Regarding IR LED used for transmitter,
 $\lambda_p=940nm, \Delta\lambda=50nm$.

Regarding photo diode,
 Sensitivity $S=26nA/Lx$
 In case light source temperature $2856^\circ K$,
 $E_e=100Lx, V_R=5V$

(2) Test system: Shown in Fig.3.

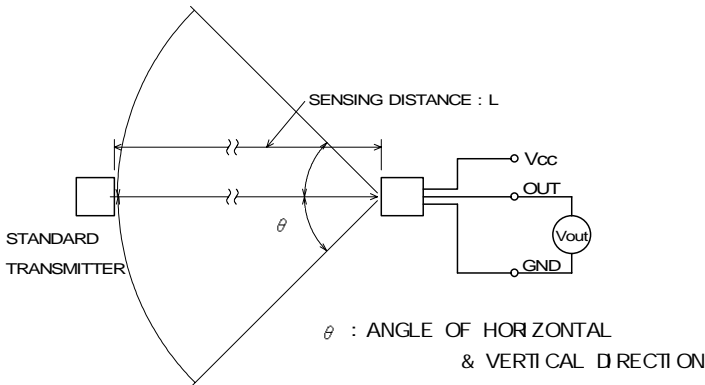


Fig.3 TEST SYSTEM

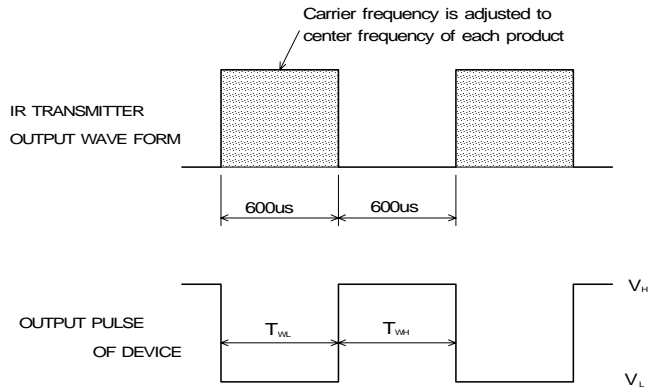


Fig.1 TRANSMITTER WAVE FORM

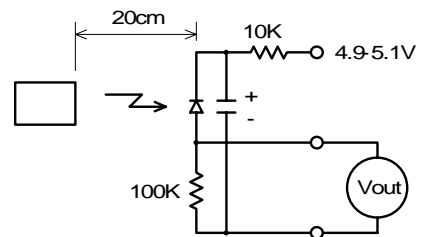
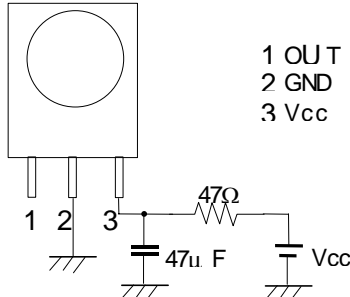


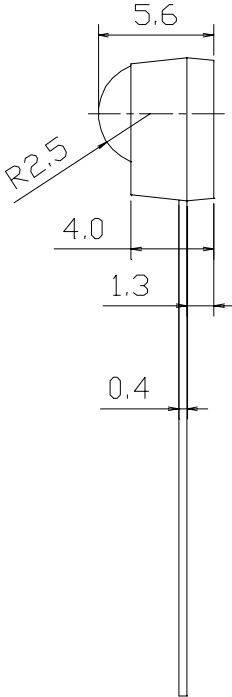
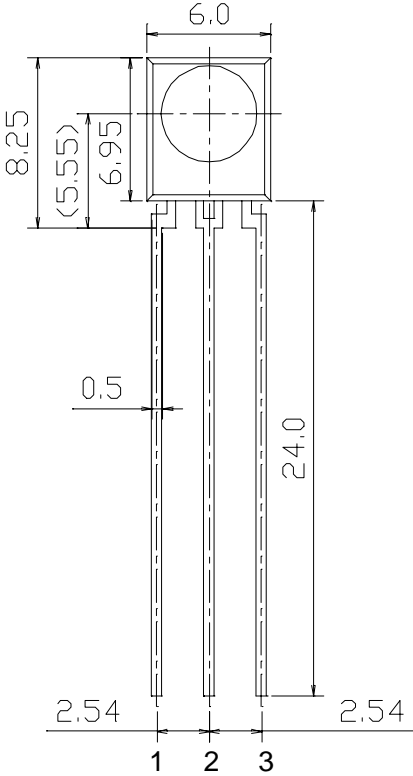
Fig.2 STD.TRANSMITTER TEST CIRCUIT

■ **RECOMMENDED APPLICATION CIRCUIT**



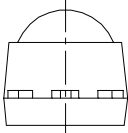
RC Filter should be connected closely between Vcc pin and GND pin.

■ **OUTLINE**



- 1. OUT
- 2. GND
- 3. Vcc

NJL69V000A
UNIT:mm



[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