

RPM-670CBR series

Remote controlled photosensitive IC

This small size single-chip lightweight molded IC is used to detect light from a remote source. It is molded in plastic.

Features

- compact and light plastic package
- built-in magnetic shield
- available in 2 different lead-forming models (shown in diagrams) and for 5 different receptor frequencies (see following table)
- All photosensitive ICs in this series have a standard availability

Part no	Center frequency (kHz)
RPM-671-S(L)	30.3
RPM-672-S(L)	32.8
RPM-675-S(L)	36.7
RPM-676-S(L)	38
RPM-678-S(L)	40

Applications

- video cameras
- movie cameras
- audio equipment

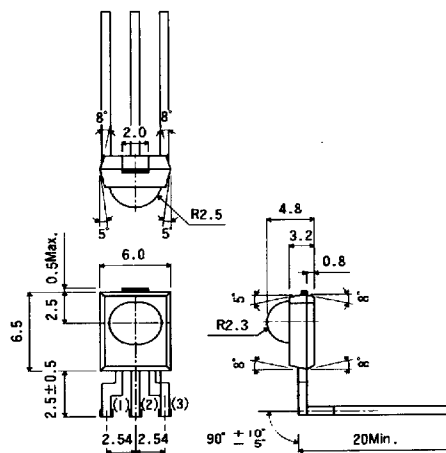
Absolute maximum ratings (T_a = 25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	6.3	V
Operating temperature	T _{opr}	-10 ~ +75	°C
Storage temperature	T _{stg}	-30 ~ +100	°C
Soldering temperature ¹	T _{sol}	260	°C

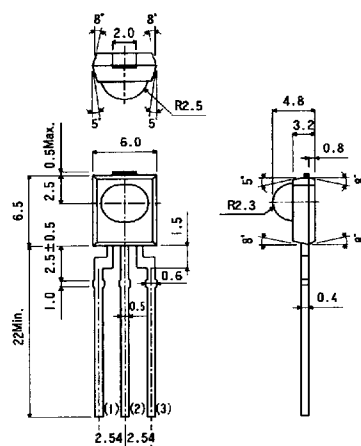
¹. 5 sec, 3 mm from base of IC body

Dimensions (Units : mm)

RPM-670CBR-L



RPM-670CBR-S

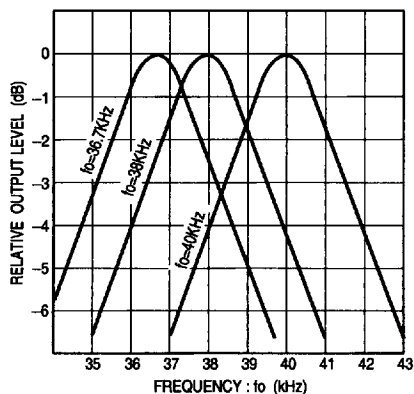
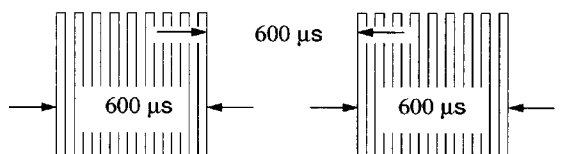
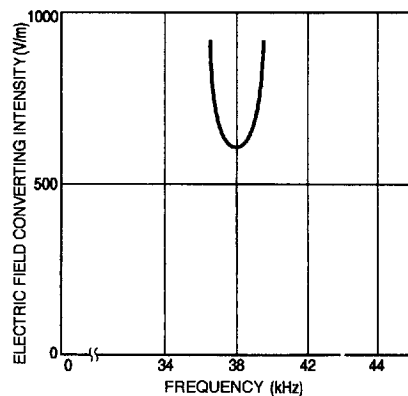


Electro-optical characteristics ($V_{CC} = 5\text{ V}$, $T_a = 25^\circ\text{C}$)

Parameter	Symbol	Min	Typical	Max	Unit	Conditions
Operating voltage	V_{CC}	4.5	5.0	5.5	V	
Current consumption	I_{CC}			3.0	mA	Without external light input
Electromagnetic sensitivity	ES	400	600		Vpp/m	
Detection length	L	8	12		m	
High level voltage	V_H	4.5			V	When burst wave in following illustration is transmitted via standard transmitter.
Low level voltage	V_L			0.5	V	
On-pulse width	T_{ON}	400	600	800	μs	
Off-pulse width	T_{OFF}	400	600	800	μs	
Central frequency ¹	f_o				kHz	

¹ Five types: 30.3, 32.8, 36.7, 38, 40 kHz; ON/OFF pulse width satisfied from 20 cm to detection limit

Burst wave:
carrier frequency f_o ,
duty 50%

**Figure 1****Figure 2**

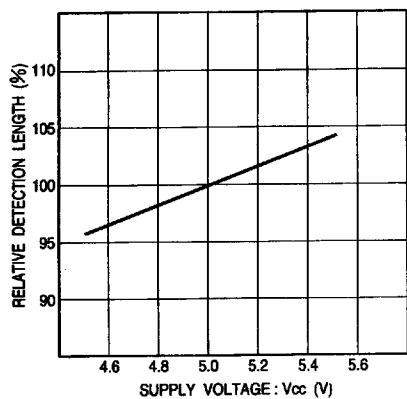


Figure 3

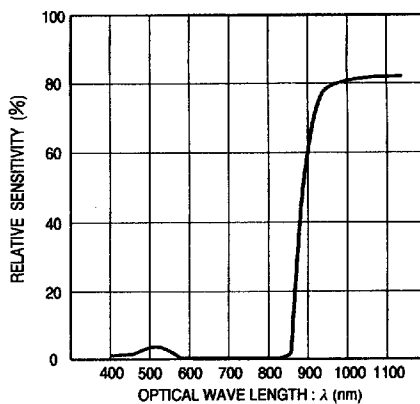


Figure 4

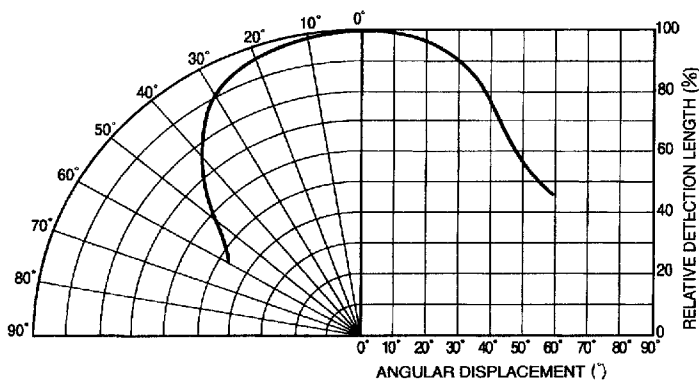


Figure 5 Horizontal plane

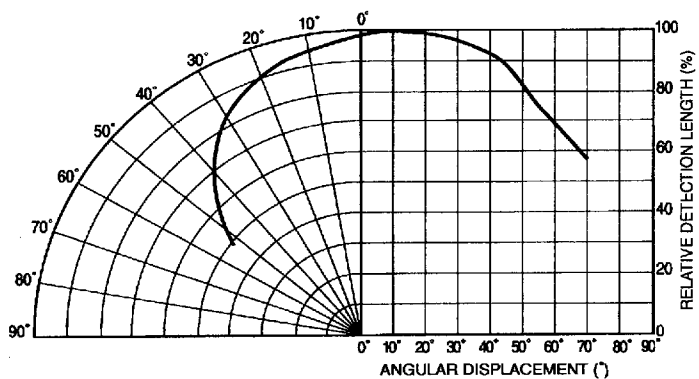


Figure 6 Vertical plane