

RPM-600CBR 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-630-S(L)	30.3
RPM-633-S(L)	32.8
RPM-637-S(L)	36.7
RPM-638-S(L)	38
RPM-640-S(L)	40

Applications

- video cameras
- movie cameras
- audio equipment

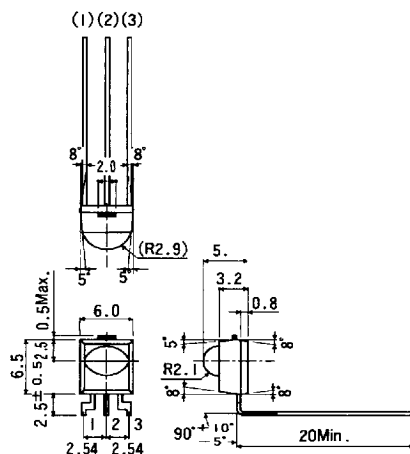
Absolute maximum ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	6.3	V
Operating temperature	T_{opr}	$-10 \sim +75$	$^\circ\text{C}$
Storage temperature	T_{stg}	$-30 \sim +100$	$^\circ\text{C}$
Soldering temperature ¹	T_{sol}	260	$^\circ\text{C}$

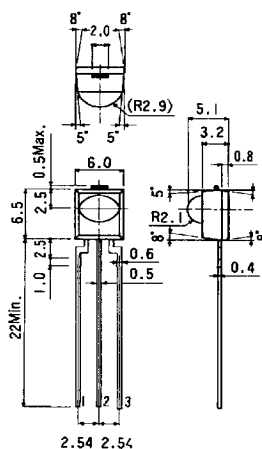
¹ 5 s, 3 mm from base of IC body

Dimensions (Units : mm)

RPM-600CBR-L



RPM-600CBR-S



Electro-optical characteristics (V_{CC} = 5 V, T_a = 25°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 ₀				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 f₀,
duty 50%

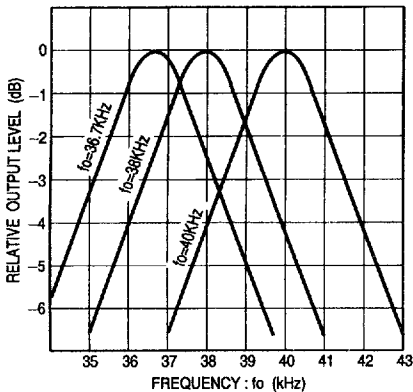
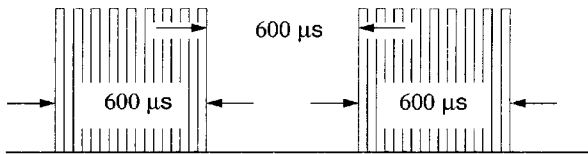


Figure 1

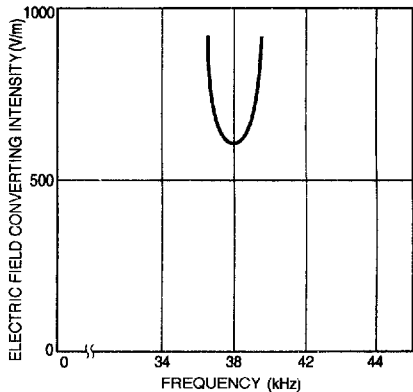


Figure 2

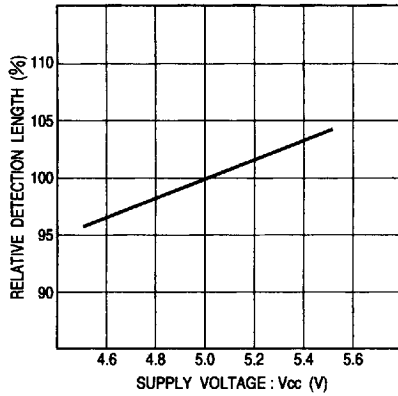


Figure 3

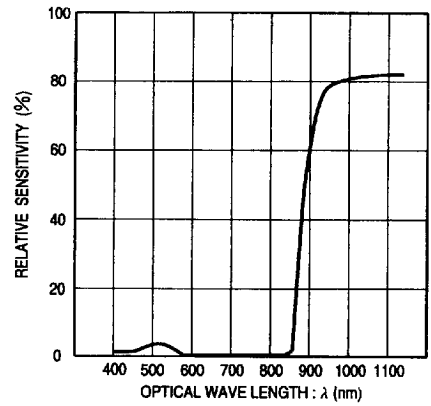


Figure 4

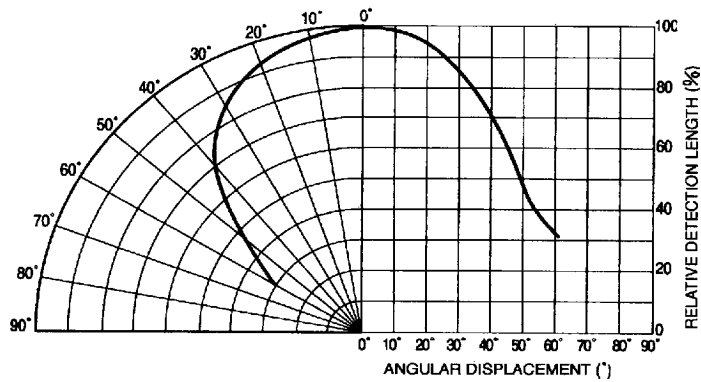


Figure 5 Horizontal plane

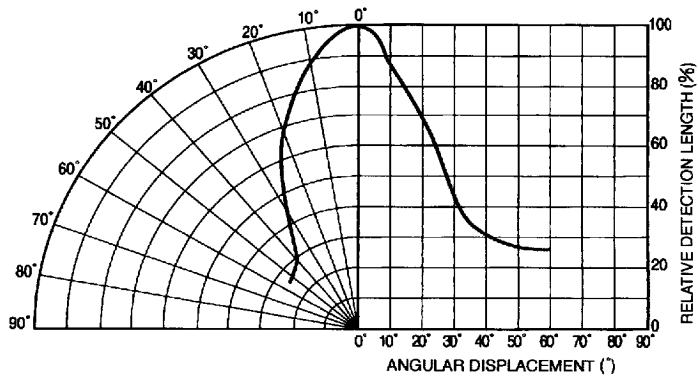


Figure 6 Vertical plane