SHARP

Under development	
New product	●

GP1UM27XK series IR Detecting Unit for Remote Control

Compact IR Detecting Unit for Remote Control

■ Features

(1) Compact
- Outline dimensions: 5.6 × 9.6 × 6.8mm (**GP1UM26XK**)
- Mounting area: 44% reduction compared to conventional models

(2) Low dissipation current
Dissipation current: MAX.1.5mA

(3) Product lineup includes types with strengthened resistance to electromagnetic induction noise.

(4) Profile variations enable flexible mounting.

■ Applications

(1) AV equipment

(2) Home appliances

■ Absolute Maximum Ratings

(Ta=25˚C)

Parameter	Symbol	Ratings	Unit
Supply voltage	V_{CC}	6	V
*1 Operating temperature	T_{opr}	- 10 to + 70	˚C
Storage temperature	T_{stg}	- 20 to + 70	˚C
*2 Soldering temperature	T_{sol}	260	˚C

*1 No dew formation

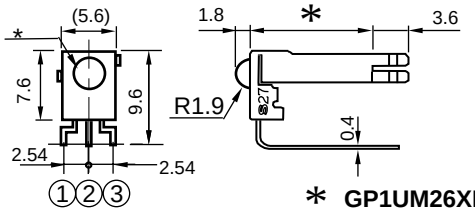
*2 For 5s

■ Outline Dimensions

(Unit: mm)

GP1UM26XK
GP1UM27XK
GP1UM28XK

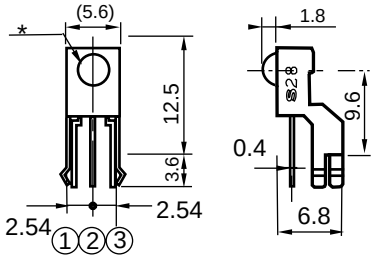
＊ with mesh
GP1UM26RK
GP1UM27RK
GP1UM28RK



＊ **GP1UM26XK**:5.2
GP1UM27XK:10.2
GP1UM28XK:14.2

GP1UM28YK

＊ with mesh
GP1UM28QK



■ Recommended Operating Conditions

(Ta=25˚C)

Parameter	Symbol	Ratings	Unit
Supply voltage	V_{CC}	4.5 to 5.5	V

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GP1UM27XK Series IR Detecting Unit for Remote Control

■ Electrical Characteristics

(Ta=25˚C, VCC=+5V)

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Dissipation current	ICC	No incident light,Vcc=3V	-	-	1.5	mA
High level output voltage	VOH	-	VCC - 0.5	-	-	V
Low level output voltage	VOL	IOL=1.6mA	-	-	0.5	V
B.P.F. center frequency	fO	-	-	*3	-	kHz
Detecting distance	L	-	8	-	-	m

*3 B.P.F. center frequency for each model is shown in the list below.

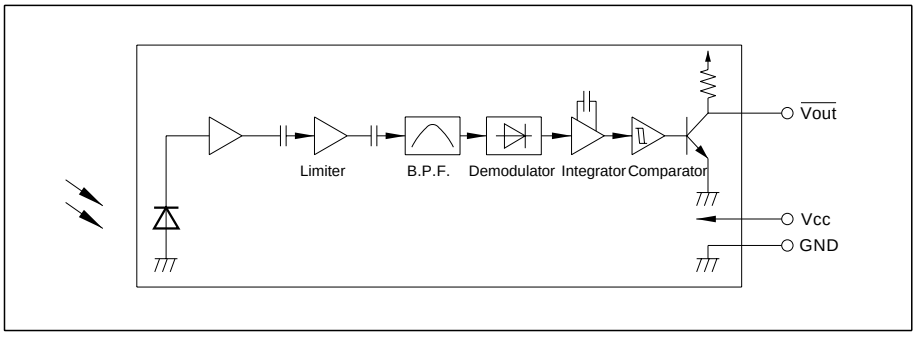
■ Model Line-ups

Various B.P.F. frequencies matching with customers' requirements are also available.

B.P.F. frequencies	Model No.				
40kHz		GP1UM26XK	GP1UM27XK	GP1UM28XK	GP1UM28YK
	*	GP1UM26RK	GP1UM27RK	GP1UM28RK	GP1UM28QK
36kHz		GP1UM260XK	GP1UM270XK	GP1UM280XK	GP1UM280YK
	*	GP1UM260RK	GP1UM270RK	GP1UM280RK	GP1UM280QK
38kHz		GP1UM261XK	GP1UM271XK	GP1UM281XK	GP1UM281YK
	*	GP1UM261RK	GP1UM271RK	GP1UM281RK	GP1UM281QK
36.7kHz		GP1UM262XK	GP1UM272XK	GP1UM282XK	GP1UM282YK
	*	GP1UM262RK	GP1UM272RK	GP1UM282RK	GP1UM282QK
32.75kHz		GP1UM263XK	GP1UM273XK	GP1UM283XK	GP1UM283YK
	*	GP1UM263RK	GP1UM273RK	GP1UM283RK	GP1UM283QK
56.8kHz		GP1UM267XK	GP1UM277XK	GP1UM287XK	GP1UM287YK
		GP1UM267RK	GP1UM277RK	GP1UM287RK	GP1UM287QK

* Types with strengthened resistance to electromagnetic induction noise.

■ Block Diagram



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  (i) The devices in this publication are designed for use in general electronic equipment designs such as:
  --- Personal computers
  --- Office automation equipment
  --- Telecommunication equipment [terminal]
  --- Test and measurement equipment
  --- Industrial control
  --- Audio visual equipment
  --- Consumer electronics

  (ii) Measures such as fail-safe function and redundant design should be taken to ensure reliability and safety when SHARP devices are used for or in connection with equipment that requires higher reliability such as:
  --- Transportation control and safety equipment (i.e., aircraft, trains, automobiles, etc.)
  --- Traffic signals
  --- Gas leakage sensor breakers
  --- Alarm equipment
  --- Various safety devices, etc.

  (iii) SHARP devices shall not be used for or in connection with equipment that requires an extremely high level of reliability and safety such as:
  --- Space applications
  --- Telecommunication equipment [trunk lines]
  --- Nuclear power control equipment
  --- Medical and other life support equipment (e.g., scuba).

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