



SHENZHEN LFN TECHNOLOGY CO.,LTD

Infrared Receiver Module



PRODUCTS SPECIFICATION

Model: LF0038M

<http://WWW.LFN.CC>

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Model: LF0038M

1. Specification:

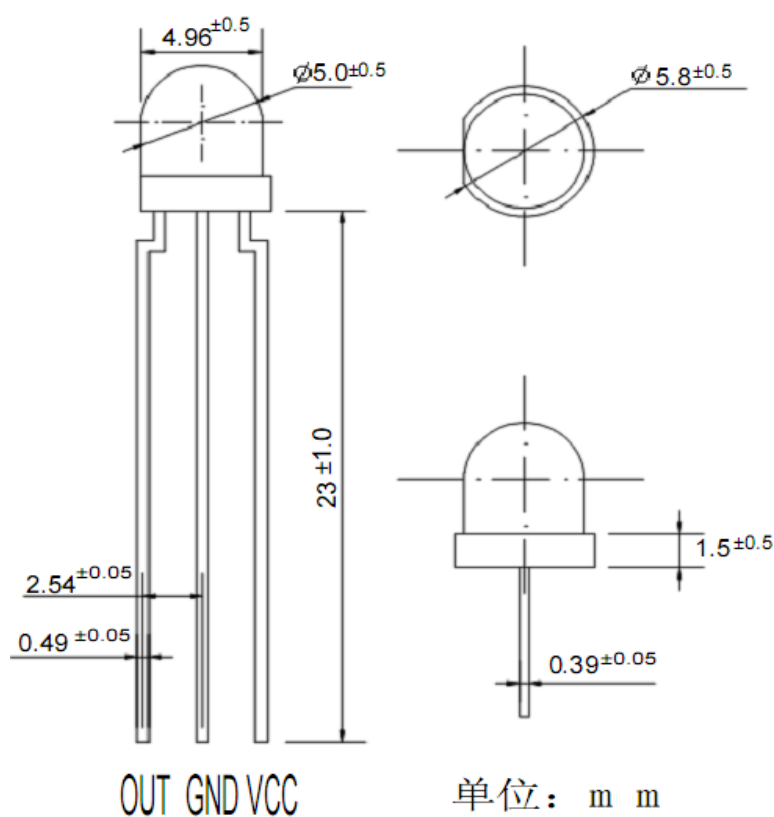
- Small design;
- Built-in chip;
- Wide-angle and long distance reception;
- With strong anti-jamming capability;
- Anti-jamming from the light;
- Low voltage working;

2. Application:

- AV equipment (speaker, TV, projector, DVD player, VCD player, DVB player)
- Home appliances (fan, air-condition, light)
- Other remote control appliances;

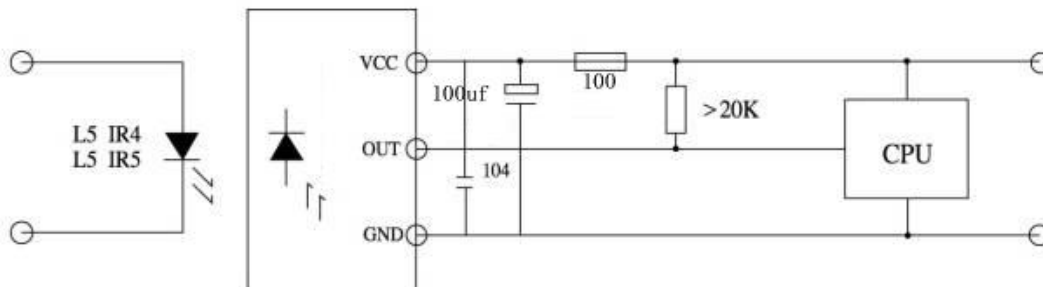


3. SIZE:

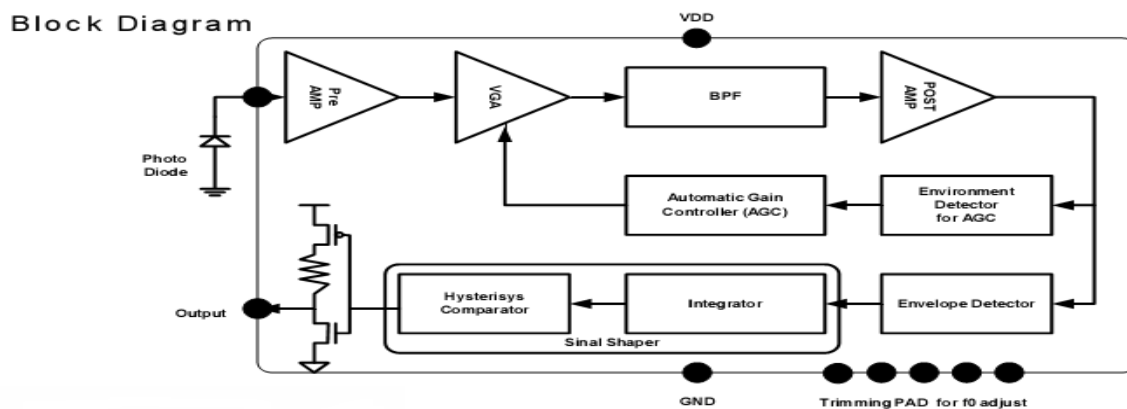


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4. Application Circuit:



5. Schematic:



6. Optical parameters (T=25°C Vcc=5v f₀=36.7/38KHZ):

Parameters	Mark	Test condition	Min	Type	Max	Unit
Working votage	V _{cc}		2.7		5.5	V
Working Current	I _{cc}		0.6	0.8	—	mA
Quiescent current	I _{ce}	With out signal	0.1		0.5	mA
Receive distance	L	※	20	23		M
Receive angle	θ 1/2		+/-60			Deg
Carrier frequency	f ₀		36.7/38			KHZ
BMP width	f _{BW}	-3Db Bandwidth	—	8	—	kHz
Low output	V _{OL}	Vin=0V Vcc=5V			0.4	V
High output	V _{OH}	Vcc=5V	Vcc-0.3		Vcc	V
Output pulse Width	T _{PWL}	Vin=50mVp-p	500	600	700	μ S
	T _{PWH}	Vin=50mVp-p	540	640	740	μ S



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7. TEST WAVE:

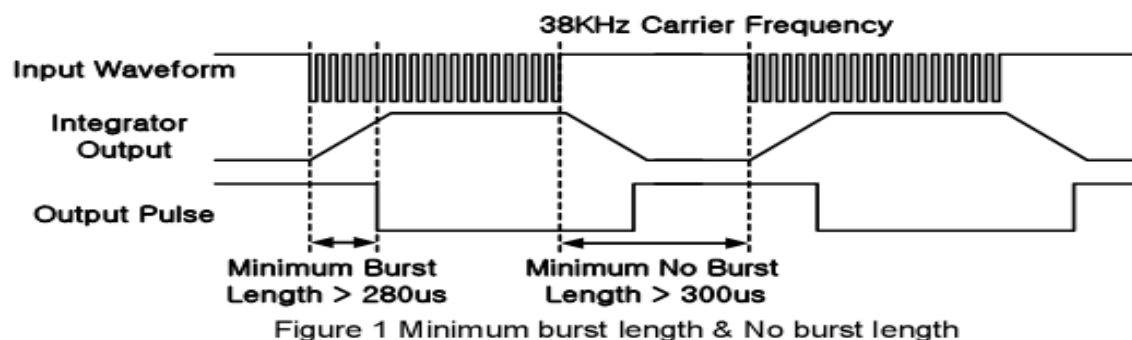


Figure 1 Minimum burst length & No burst length

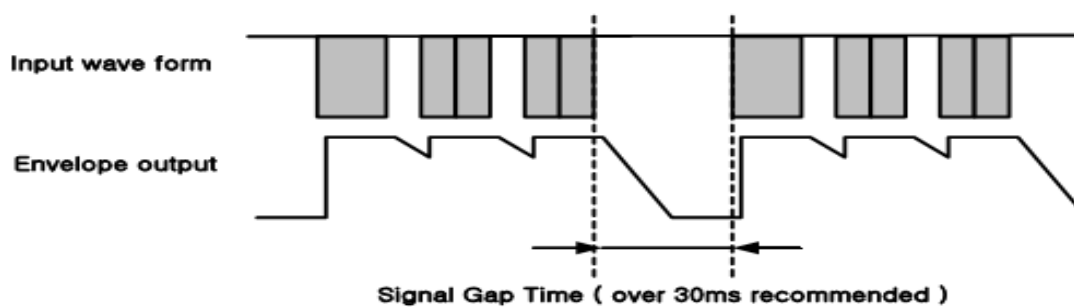
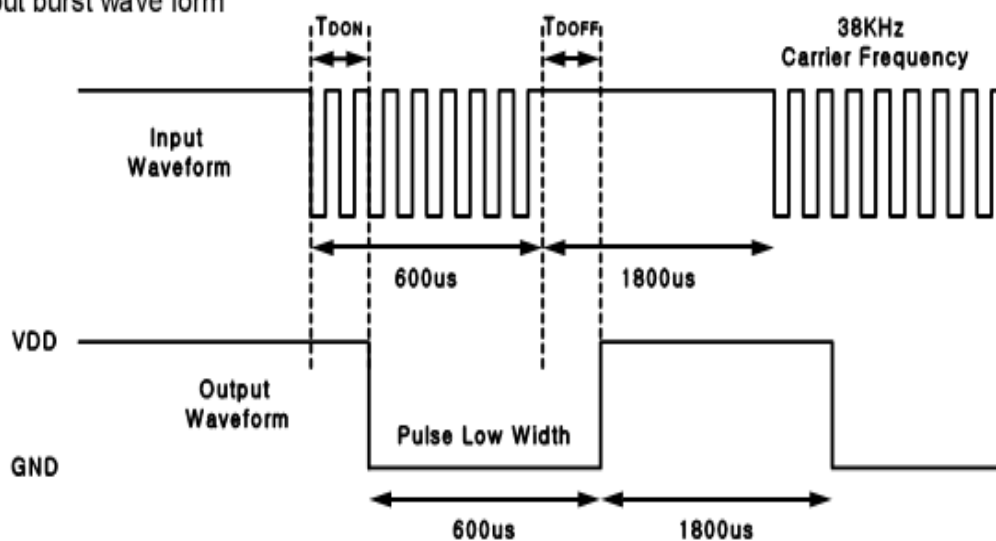


Figure 2 Recommended repeated code format

8. Characteristics Curve(Tamb=25°C unless otherwise specified):

Note 1:

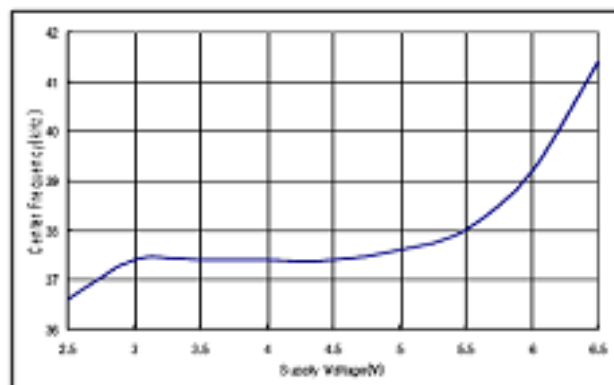
Input burst wave form



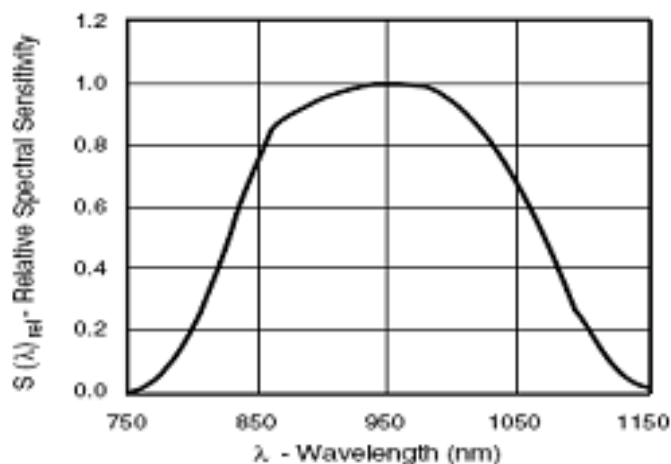


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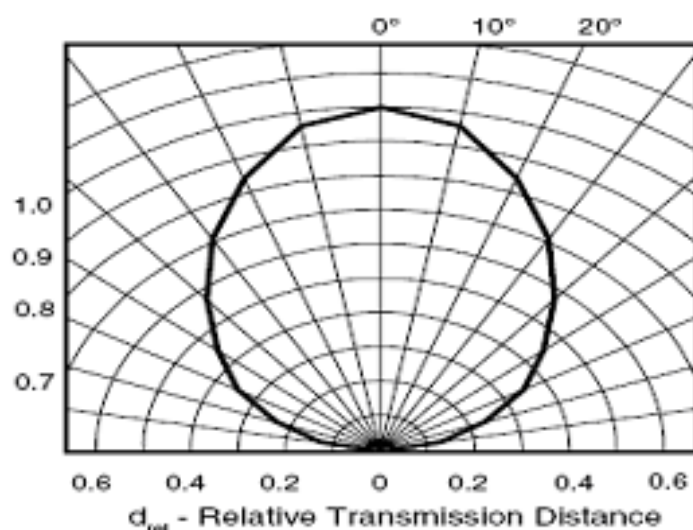
Typical Electrical Curves at Temp=25°C



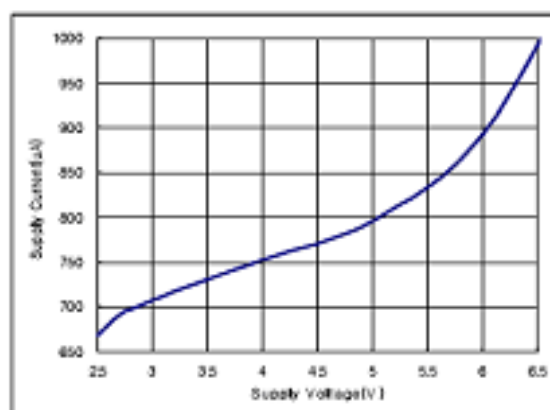
Center Frequency vs supply voltage



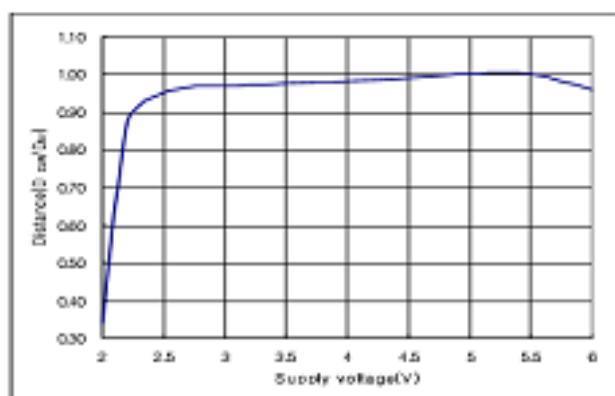
Relative Spectral Sensitivity vs Wavelength



Directivity



Supply current vs supply voltage



Supply current vs supply voltage



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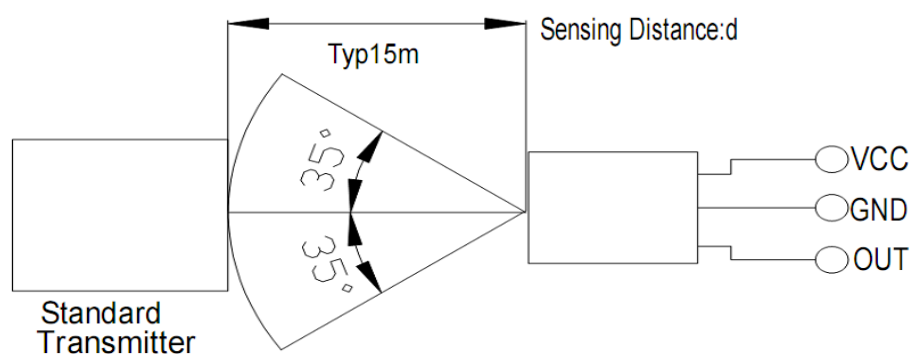
9. Max parameters:

Items	Mark	Spec	Unit
Voltage	V_{cc}	-0.3—6.5	V
temperature	T_{opr}	-25— +85	°C
Stock temp.	T_{stg}	-40 — +125	°C
Soldering temp.	T_{sol}	260 (5S)	°C

10. Best condition:

Item	Mark	Min	Typ	Mnx	Unit
Working voltage	V_{cc}	2.7	-----	5.5	V
Input frequency	FM		36.7/38		kHz
Working Temp.	T_{opr}	-20	25	80	°C

11. Receive Angle:



12. Use Note

1. Without any external pressure and influence the quality of the environment, storage and use
2. Stored and used in the non-polluting gas
3. Use in low humidity environment
4. Soldering in stand condition
5. Do not clean the product used water, Please connect the anti-static wire to the electric iron