



SRM-354VF

Remocon Preamp

Features

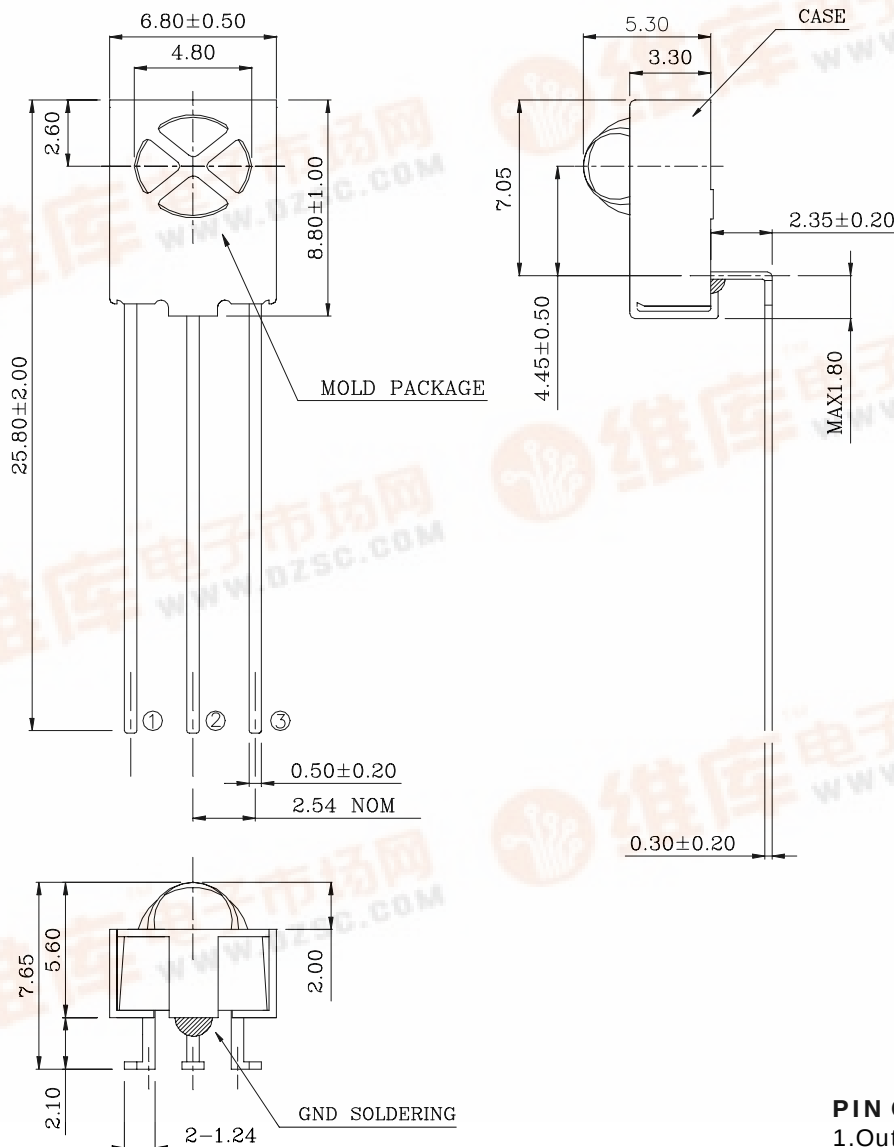
- Photo detector and preamplifier in one package
- Enhanced immunity against all kinds of disturbance light
- High performance photo diode and built-in I.C
- High speed response and output
- Low power consumption and easy use

Application

- Light detecting portion of remote control
- TVs, VCRs, Audio equipments, CATV Set Top boxes, Multi-media equipments

Outline Dimensions

unit : mm



PIN Connections

- 1.Output
- 2.Gnd
- 3.Vcc(+5V)

Absolute maximum ratings

Characteristic	Symbol	Ratings	Unit
Supply Voltage	V_{CC}	6.0	V
Power Dissipation	P_D	0.27	W
Operating Temperature	T_{opr}	-10 ~ 60	
Storage Temperature	T_{stg}	-20 ~ 75	
*1Soldering Temperature	T_{sol}	260 within 5 seconds	

*1.Keep the distance more than 2.0mm from PCB to the bottom of package

Electrical Characteristics

(Ta=25°C)

Parameter	Symbol	Test Condition		Min.	Typ.	Max.	Unit
Supply Voltage	V _{cc}	-		4.5	5.0	5.5	V
Current Consumption	I _{cc}	#1		0.3	-	1.5	mA
Resonance Frequency	f _C	-		-	38	-	KHz
Peak sensitivity wavelength	λ _p	-		-	980	-	nm
H level output voltage	V _{OH}	#2		4.5	5.0	-	V
L level output voltage	V _{OL}			-	0.2	0.4	V
H level pules width	T _{wh}			500	-	700	us
L level pules width	T _{wl}			500	-	700	us
Arrival distance	L	#2,3,4	± 0 °	-	20	-	m
			± 30 °	-	15	-	
			± 45 °	-	10	-	
Output form	Active low						

Characteristic Diagrams

Fig. 1 Relative Spectral Sensitivity - Wavelength

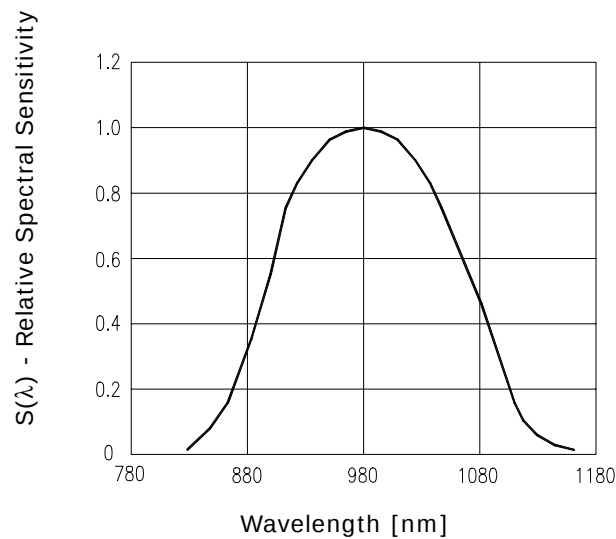


Fig. 2 drel-Relative Transmission Distance

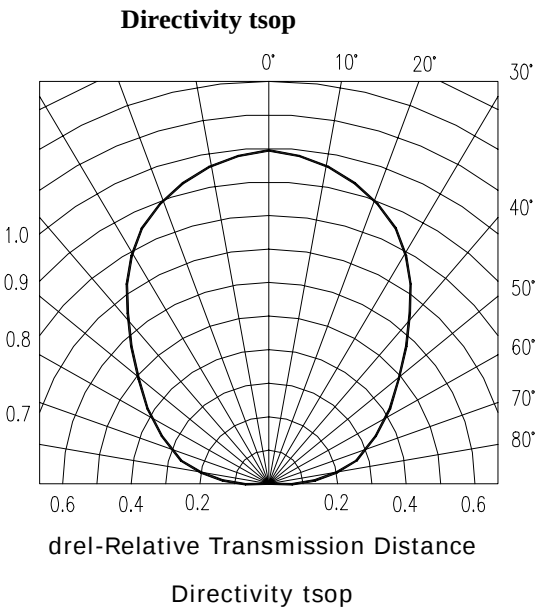
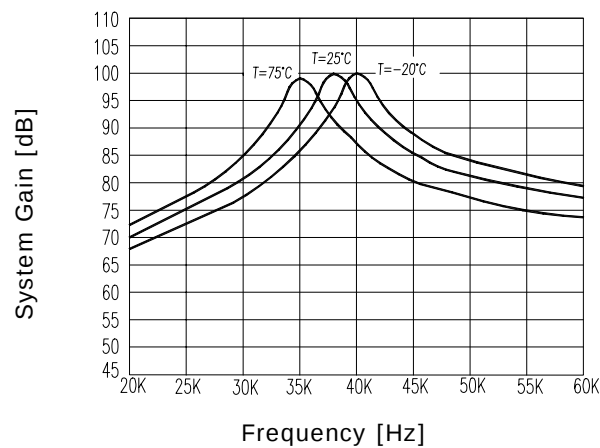


Fig. 3 System Gain - Frequency



1. No input signal.

2. The burst wave forms shown below in the Fig 1. Shall be transmitted by the standard transmitter.

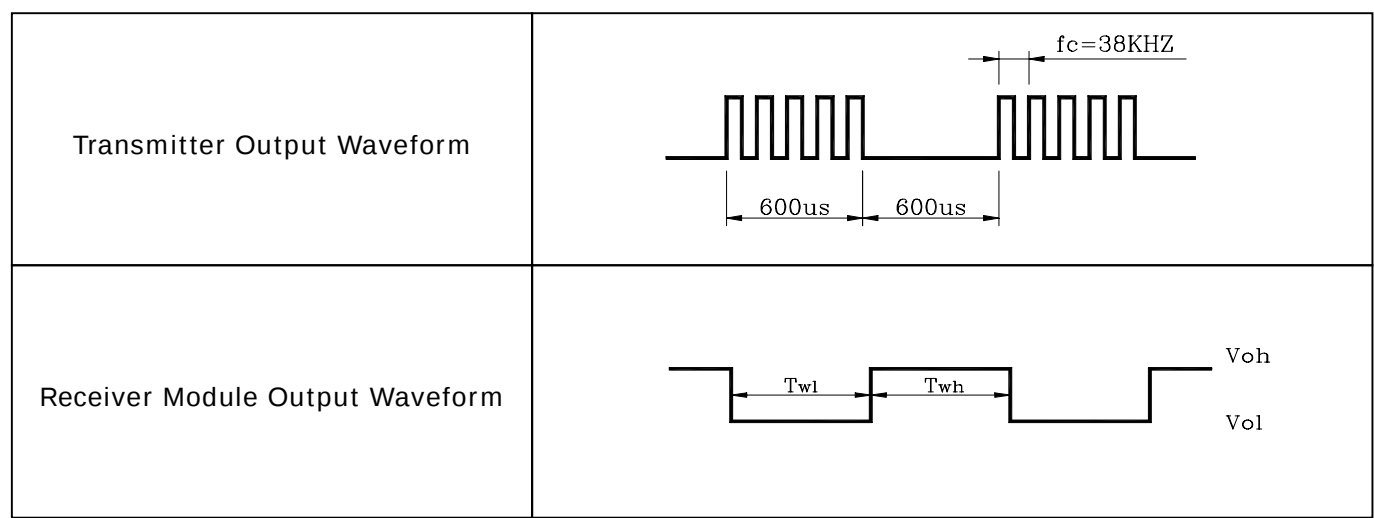
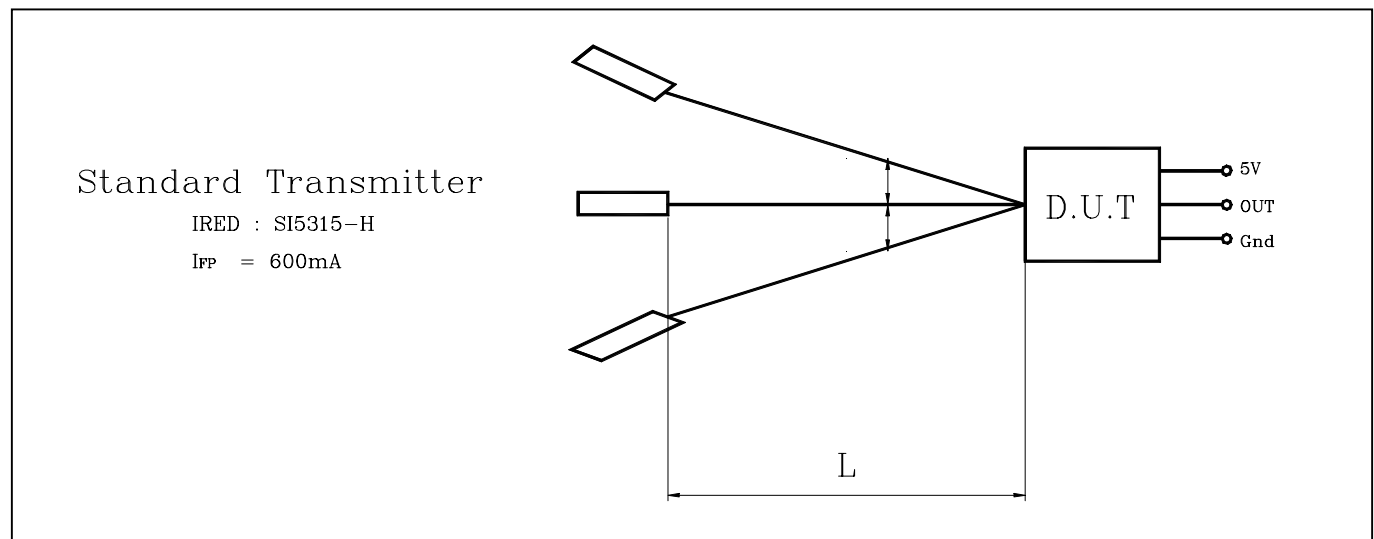


Fig 1. Transmitter & Receiver wave forms

3. The test condition of arrival distance.



#4. The arrival distance is measured in the darkness without disturbing noises.

Reliability Test

Test items	Test condition	Remarks
High temp & High humid	Ta=40 , RH=90%, t=96Hr's	#1, 2
Heat cycle	#2, 3	-
Fall test	#4	-

#1. Supply voltage 5V at the load test.

#2. Electro-optical characteristics shall be satisfied after 2hr's at normal temperature.

#3. Heat cycle test as below Fig2. For 20 cycles under no load.

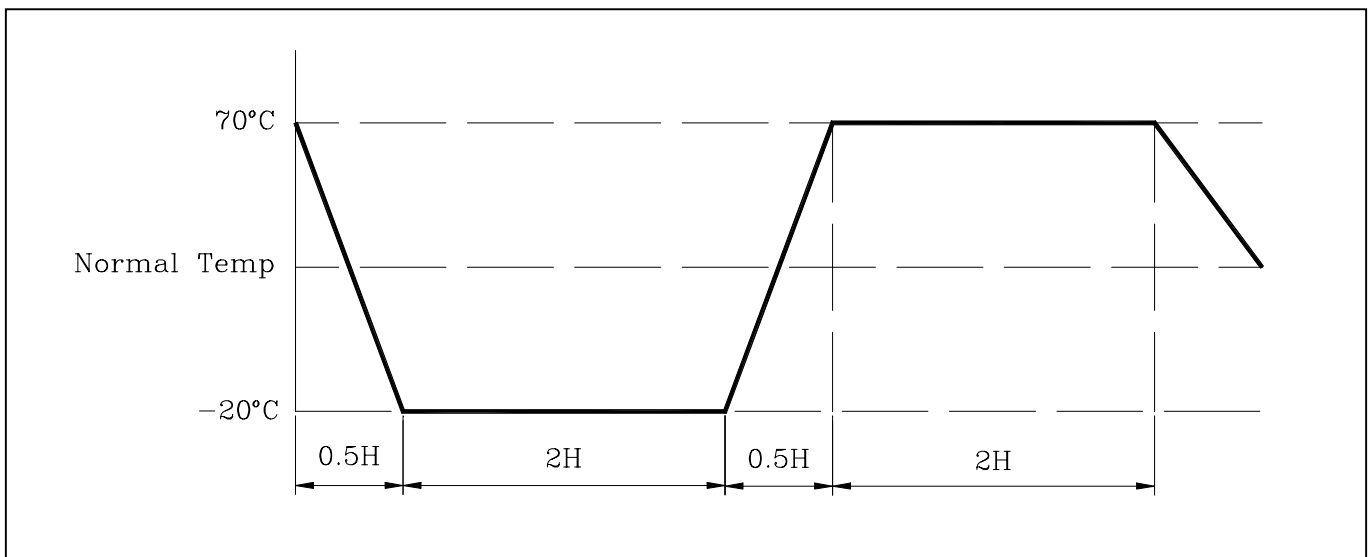


Fig 2. Heat cycle test

#4. Fall test

The test devices to fall three time onto hard wooden board from a level 75 cm

The others

In case of noisy power supply, please serially insert about 47Ω resistance and about $47\mu\text{F}$ electrolytic capacitance in line as follows.

