

Features

- Red and IR emitters in a single package
- Sharp directivity with a glass lens
- Highly reliable hermetic seal
- Direct modulation

Applications

- Bill recognition
- Color sensors
- Spectroscopic sensors

Maximum ratings

Item	Symbol	Value		Units
		Infrared	Red	
Forward Current	I_F	100	50	mA
Peak Forward Current*1	I_{FP}	1	0.5	A
Reverse Voltage	V_R	6	6	V
Power Dissipation*2	P_D	150	100	mW
Operating Temperature	T_{op}	-25~ +100		°C
Storage Temperature	T_{stg}	-40 ~ +125		°C
Soldering Temperature*3	T_{sol}	260		°C

*1:Pulse width=100μs,Duty ratio=0.1%

*2:Max. power dissipation=150mw

*3:Max 5 sec. at 2.6mm above case bottom

Characteristics (Ta=25 °C unless otherwise noted.)

Parameter	Symbol	Min.	Typ.	Max.	Units	Test Conditions
Forward Voltage	Infrared V_F		1.3	1.6	V	$I_F=100\text{mA}$ $I_F=50\text{mA}$
	Red		1.9	2.3		
Reverse Current	I_R			10	μA	$V_R=6\text{V}$
Optical Output Power	Infrared P_O	4.0	8.0	16	mW	$I_F=100\text{mA}$ $I_F=50\text{mA}$
	Red	2.0	5.0	10		
Peak Emission Wavelength	Infrared P		940		nm	$I_F=100\text{mA}$ $I_F=50\text{mA}$
	Red		660	675		
Spectral Bandwidth at 50%	Infrared		50		nm	$I_F=100\text{mA}$ $I_F=50\text{mA}$
	Red		20			
Capacitance	Infrared C		50		pF	$V=0, f=1\text{MHz}$
	Red		30			
Half Intensity Angle			+/-30		°	
Cutoff Frequency	f_c		300		kHz	

