

KPI-3020R

Dimensions

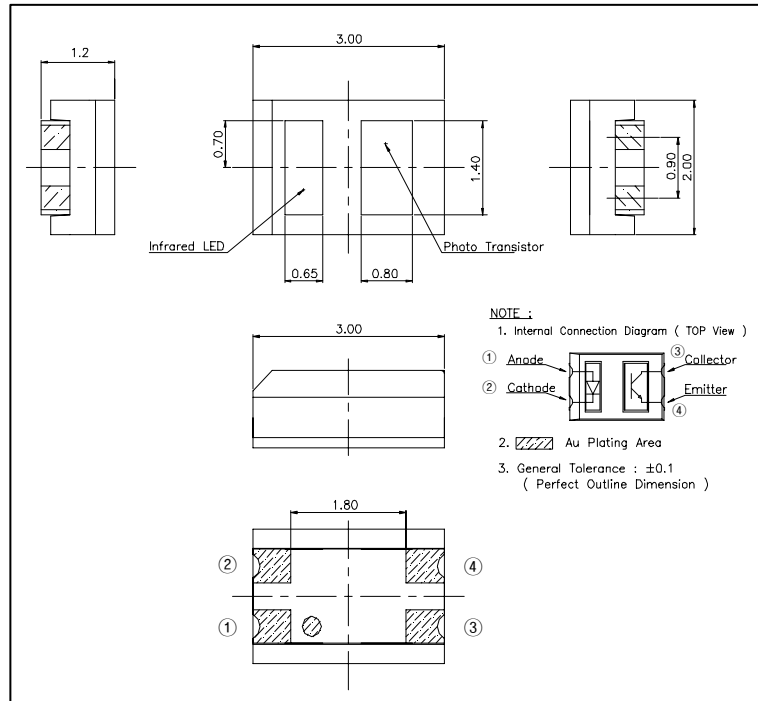
(Unit : mm)

Features

- Miniature Leadfree Surface Mount Package
- Reflective with Phototransistor Output
- Reflow Soldering
- Optical Sensing Distance : 1.0mm
- RoHS compliant and Lead free package

Applications

- Limit Switch for linear drive system
- Edge Sensor
- Digital Camera Module
- AF Camera Phone Module
- Detection of object presence or motion.



ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Parameter		Symbol	Rating	Unit
Input	Forward current	I_F	50	mA
	Reverse voltage	V_R	5	V
	Power dissipation	P_D	75	mW
Output	Collector-emitter voltage	V_{CEO}	30	V
	Emitter-collector voltage	V_{ECO}	5	V
	Collector current	I_C	20	mA
	Collector power dissipation	P_C	50	mW
Total power dissipation		P_{tot}	100	mW
Operating temperature		T_{opr}	-20 to +85	°C
Soldering temperature *1		T_{sol}	260	°C

*1. For 5 sec or less

Electro-optical Characteristics

(Ta=25°C)

Parameter		Symbol	Conditions	Min.	Typ.	Max.	Unit	
Input	Forward voltage	I_F	$I_F=20mA$	-	1.2	1.4	V	
	Reverse current	I_R	$V_R=5V$	-	-	10	μA	
	Peak wavelength	λ_p	-	-	940	-	nm	
Output	Collector dark current	I_{CEO}	$V_{CE}=10V$	-	1	100	nA	
Transfer Characteristic	Collector current	I_C	$I_F=2mA, V_{CE}=2V$	100	380	750	μA	
	Leakage current	I_{LEAK}	$I_F=2mA, V_{CE}=2V$	-	-	20	μA	
	Response time	Rise time	t_r	$V_{CE}=2V, I_C=100\mu A$ $R_L=K1, d=1mm$	-	30	100	μA
		Fall time	t_f		-	25	100	μs