

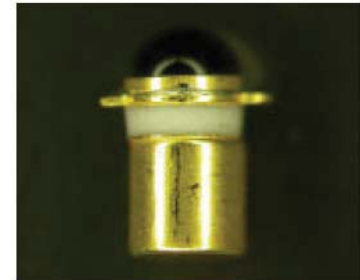
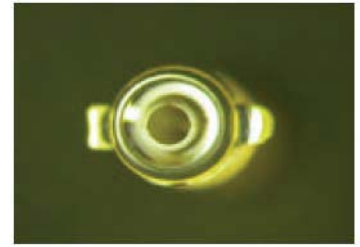
## Photo Transistor

Features:

- Narrow Angular Response
- Super Compact
- High Reliability in Demanding Environments

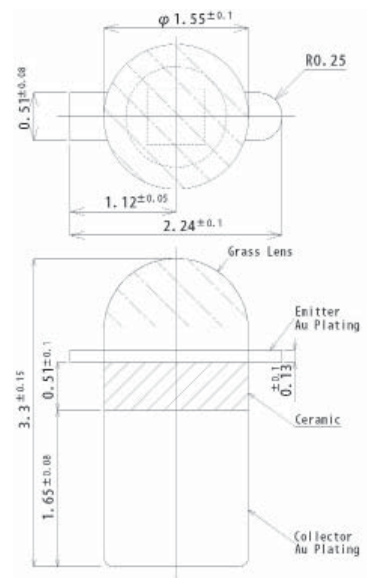
Applications:

- Optical Switches
- Edge Sensing (Coin Dispenser)
- Smoke Detectors



## Absolute Maximum Ratings (Ta=25°C)

Items	Symbol	Ratings	Unit
Collector-Emitter Voltage	V <sub>ceo</sub>	20	V
Emitter Collector Voltage	V <sub>eco</sub>	5	V
Collector Current	I <sub>c</sub>	30	mA
Collector Power Dissipation	P <sub>c</sub>	80	mW
Operating Temperature	T <sub>opr</sub>	-30 ~ +125	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +125	°C
Junction Temperature	T <sub>j</sub>	125	°C



## Electrical & Optical Characteristics (Ta = 25°C)

Items	Symbol	Conditions	Min	Typ	Max	Unit
Light Current	I <sub>L</sub>	V <sub>ce</sub> =20V, L=100Lux*	0.3	0.5	--	mA
Dark Current	I <sub>D</sub>	V <sub>ce</sub> =20V	--	--	100	nA
C-E Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =0.2mA, L=1000Lux*	--	0.2	0.4	V
Spectral Sensitivity	$\lambda$	--	--	400~1100	--	nm
Peak Sensitivity Wavelength	$\lambda_p$	--	--	880	--	nm
Switching time (Rise Time)	T <sub>r</sub>	R=100Ω, V <sub>cc</sub> =5V, I <sub>c</sub> =1mA	--	10	--	μS
Switching time (Fall Time)	T <sub>f</sub>	R=100Ω, V <sub>cc</sub> =5V, I <sub>c</sub> =1mA	--	10	--	μS
Half Intensity Beam Angle	$\theta$	--	--	±18	--	deg

\*Color Temperature = 2870°K Standard Tungsten Lamp