

## Peak Emission Wavelength: 850nm

The 850nm Point Source Series is designed for applications requiring high accuracy and precision as well as uniform spectral emission. Custom package solutions and sorting are available.

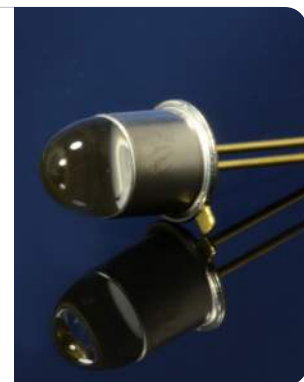
### FEATURES

- > Hermetically Sealed TO-18
- > Emitting Window Diameter  $\Phi$  150 $\mu$ m
- > Gold Plated Dome Lens
- > High Reliability / High Output Power

- > Extremely Narrow Radiation Pattern

### APPLICATIONS

- > Optical Scanning / Optical Sensors
- > Linear & Rotary Encoder
- > Edge Sensing



## Absolute Maximum Ratings (Ta=25°C)



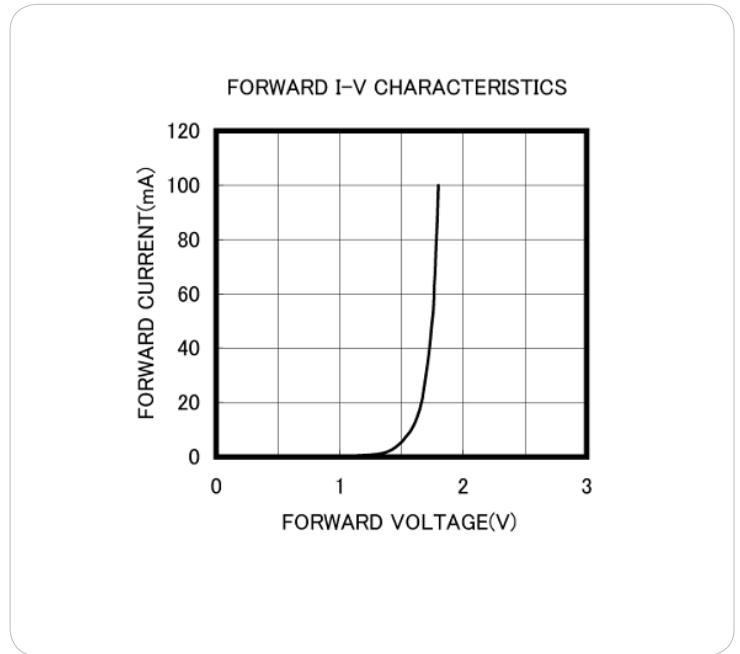
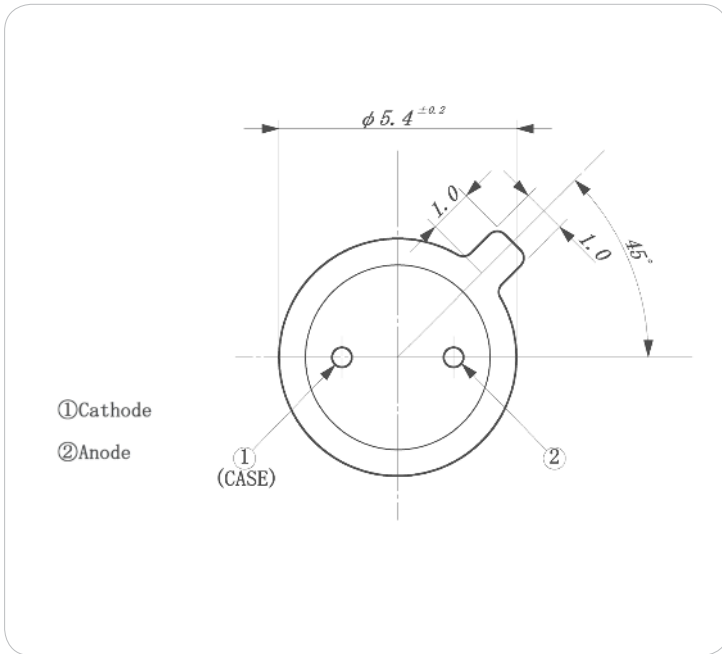
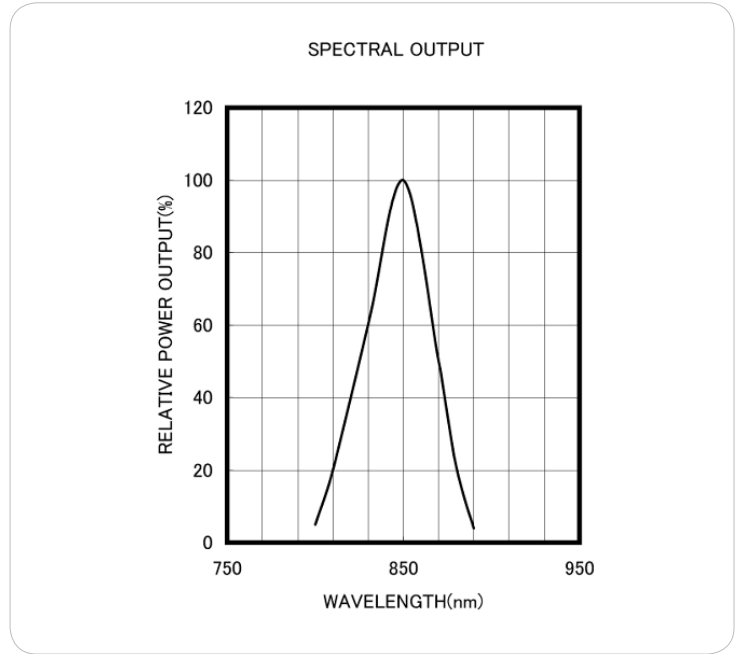
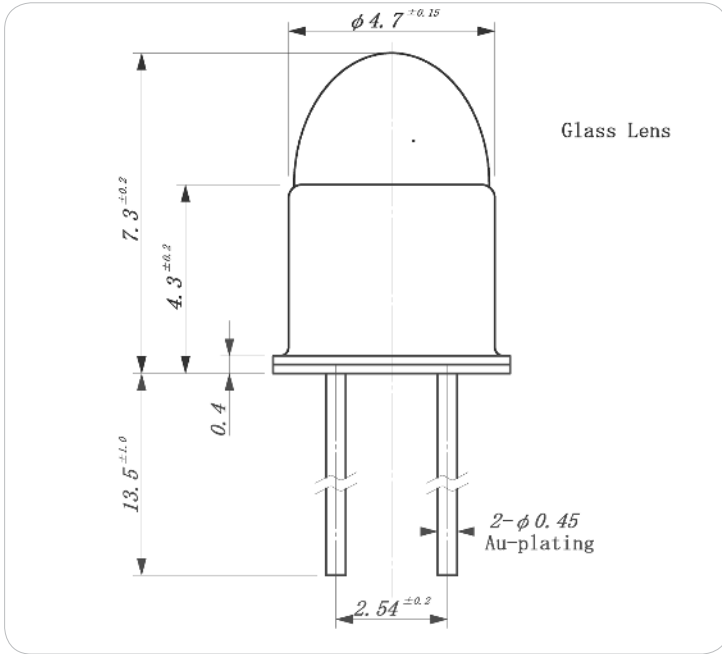
ITEMS	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	100	mA
Forward Current (Pulse)*1	IFP	0.8	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	180	mW
Operating Temperature Range	Topr	-30 ~ +100	°C
Storage Temperature Range	Tstg	-40 ~ +125	°C
Junction Temperature	Tj	125	°C
Lead Soldering Temperature*2	Tls	260	°C

\*1: Tw=10 $\mu$ sec, T=10msec; \*2: Time 5 Sec max, Position: Up to 3mm from the body.

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

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=50mA	2.0	3.3	--	mW
Forward Voltage	VF	IF=50mA	--	1.7	2.2	V
Reverse Current	IR	VR=5V	--	--	100	$\mu$ A
Peak Emission Wavelength	$\lambda_p$	IF=50mA	--	850	--	nm
Spectral Line Half Width	$\Delta\lambda$	IF=50mA	--	45	--	nm
Half Intensity Beam Angle	$\Theta$	IF=50mA	--	$\pm 2.5$	--	deg
Cut-Off Frequency	fc	*3	--	20	--	MHz
Temperature Coefficient of PO	P/T	IF=10mA	--	-0.05	--	%/°C
Temperature Coefficient of VF	V/T	IF=10mA	--	-2	--	mV/°C
Switching Time	tr, tf	IF=50mA	--	30	--	ns

\*3: IFP=50mA+20mA<sub>p-p</sub>.



Unit: mm, Tolerance:  $\pm 0.2$

