

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.

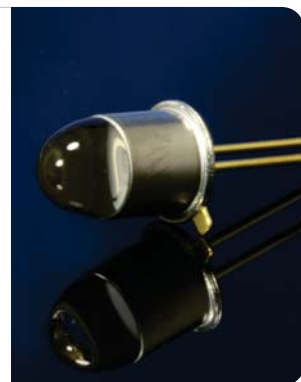
FEATURES

- > Hermetically Sealed TO-18
- > Emitting Window Diameter Φ 150 μ 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)



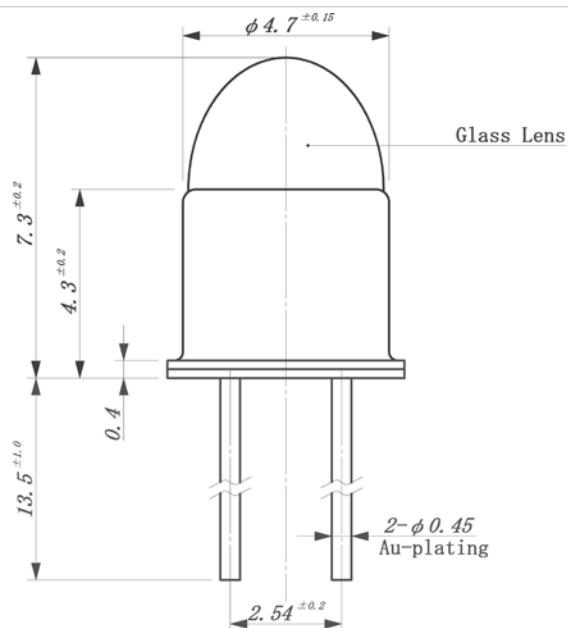
ITEMS	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	100	mA
Forward Current (Pulse)*1	IFP	1	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	180	mW
Operating Temperature Range	Topr	-30 ~ +100	°C
Storage Temperature Range	Tstg	-40 ~ +125	°C
Junction Temperature	Tj	125	°C
Lead Soldering Temperature*2	Tls	260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

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

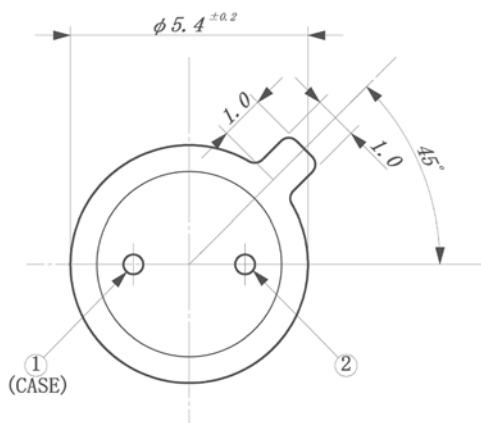
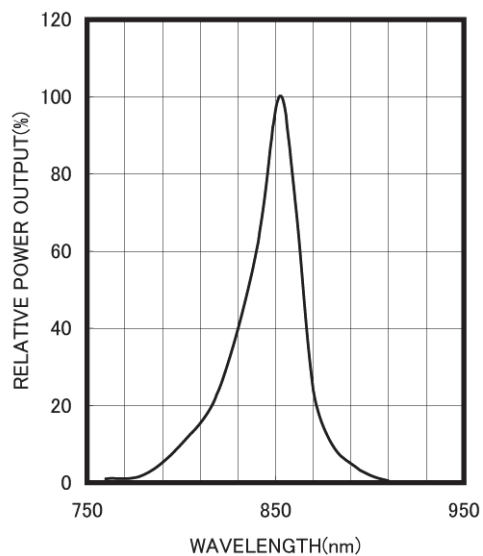
Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=50mA	1.8	2.4	--	mW
Forward Voltage	VF	IF=50mA	--	1.8	2.2	V
Reverse Current	IR	VR=5V	--	--	10	μ A
Peak Emission Wavelength	λ_p	IF=50mA	835	850	--	nm
Spectral Line Half Width	$\Delta\lambda$	IF=50mA	--	25	--	nm
Half Intensity Beam Angle	Θ	IF=50mA	--	± 2.5	--	deg
Cut-Off Frequency	fc	*3	--	25	--	MHz

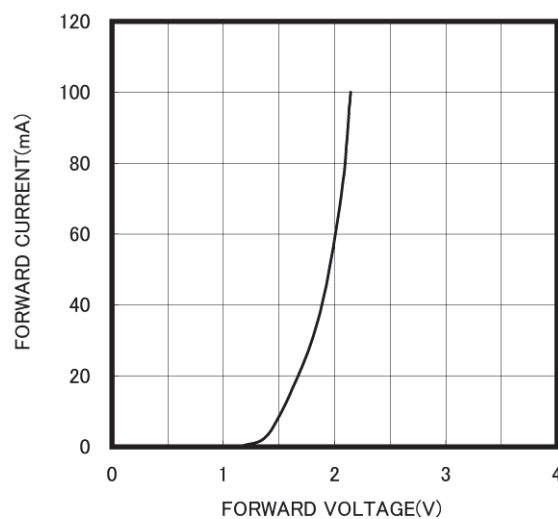
*3: IFP=50mA+20mA_{p-p}.



SPECTRAL OUTPUT

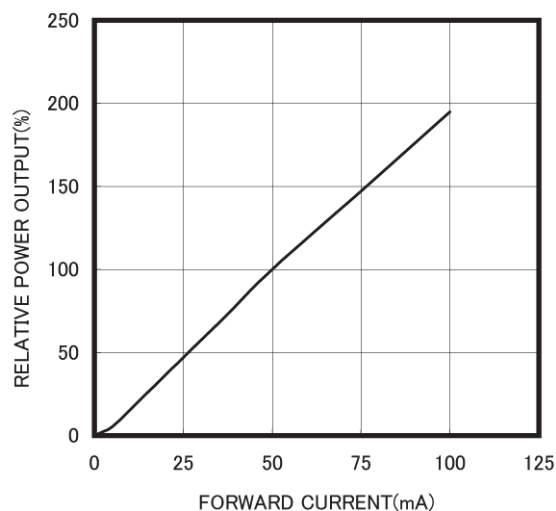


FORWARD I-V CHARACTERISTICS

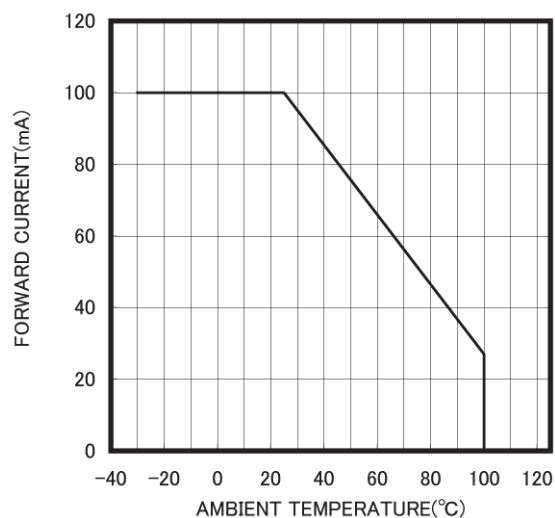


Unit: mm, Tolerance: ± 0.2

RELATIVE POWER vs FORWARD CURRENT



THERMAL DERATING CURVE



RADIATION PATTERN

