

## Peak Emission Wavelength: 945nm

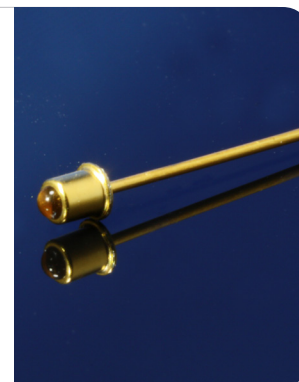
The 945nm IR emitter series is designed for applications requiring high output and precise optical / mechanical axis alignment. Custom package solutions and sorting are available.

### FEATURES

- > Hermetically Sealed Pigtail Package
- > Narrow Beam Angle
- > High Reliability

### APPLICATIONS

- > Optical Switches / Security Systems
- > Linear & Rotary Encoder
- > Remote Controls / Robotics
- > Card Readers / Medical Electronics



## Absolute Maximum Ratings (Ta=25°C)

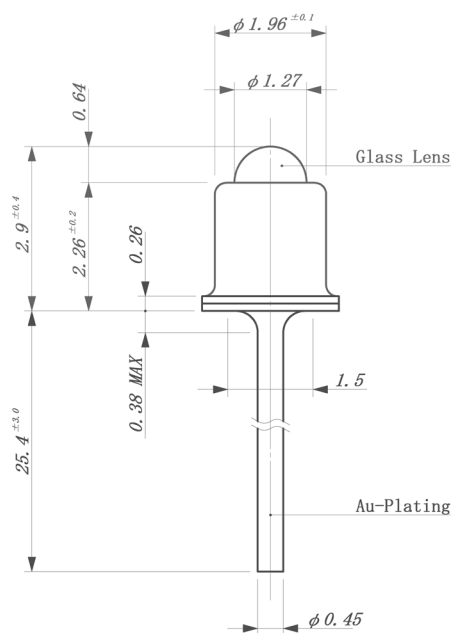


ITEMS	SYMBOL	RATINGS	UNIT
Forward Current (DC)	IF	100	mA
Forward Current (Pulse)*1	IFP	1	A
Reverse Voltage	VR	5	V
Power Dissipation	PD	180	mW
Operating Temperature Range	To <sub>opr</sub>	-20 ~ +85	°C
Storage Temperature Range	T <sub>stg</sub>	-30 ~ +100	°C
Junction Temperature	T <sub>j</sub>	100	°C
Lead Soldering Temperature*2	T <sub>ls</sub>	260	°C

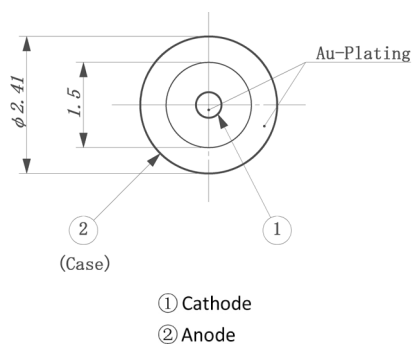
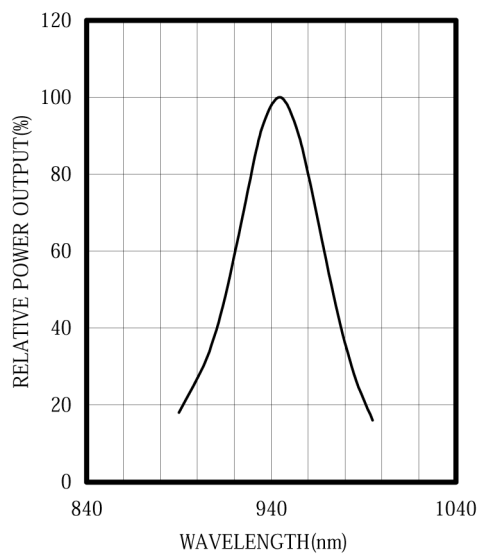
\*1: Tw=10μsec, T=10msec. \*2: Time 5 Sec max, Position: Up to 3mm from the body.

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

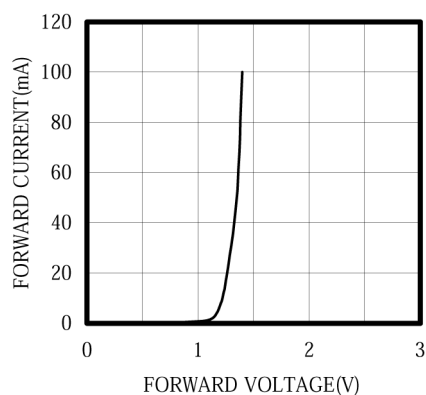
ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Power Output	PO	IF=50mA	--	4.0	--	mW
Forward Voltage	VF	IF=50mA	--	1.35	1.7	V
Reverse Current	IR	VR=5V	--	--	10	μA
Peak Emission Wavelength	λ <sub>p</sub>	IF=50mA	--	945	--	nm
Spectral Line Half Width	Δλ	IF=50mA	--	55	--	nm
Half Intensity Beam Angle	Θ	IF=50mA	--	±10	--	deg
Rise Time	Tr	IFP=50mA	--	1.0	--	μs
Fall Time	Tf	IFP=50mA	--	1.0	--	μs
Junction Capacitance	C <sub>j</sub>	1MHz, V=0V	--	20	--	pF
Temperature Coefficient of PO	P/T	IF=10mA	--	-0.5	--	%/°C
Temperature Coefficient of VF	V/T	IF=10mA	--	-1.3	--	mV/°C



SPECTRAL OUTPUT



FORWARD I-V CHARACTERISTICS



Unit: mm, Tolerance: ±0.2

