

## MTPS9087P

### Features

- High Power Output
- Parallel Rays
- Narrow Beam Angle
- Point Source LED
- Low Temp. Coefficient of PO

### Applications

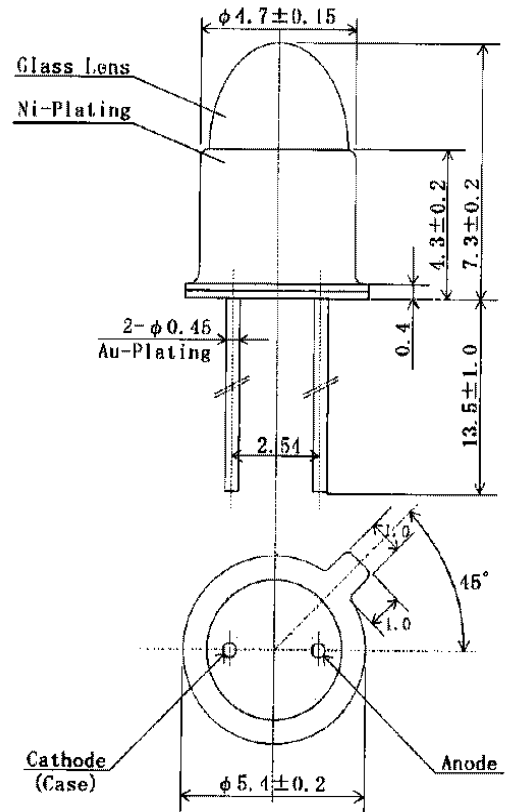
- Optical Switches
- Linear Rotary Encoder

### Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Max.	Test Condition	Unit
Forward Current	I <sub>F</sub>	100	–	mA
Pulsed Forward Current	I <sub>FP</sub>	.80	tw=10μS, T=10mS	A
Reverse Voltage	V <sub>R</sub>	5	–	V
Power Dissipation	P <sub>D</sub>	180.00	–	mW
Operating Temperature	T <sub>opr</sub>	-30 ~ +100	–	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +125	–	°C
Junction Temperature	T <sub>j</sub>	125	–	°C
Soldering Temperature	T <sub>sol</sub>	260	for 5 sec. max	°C

### Opto-Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =50mA	–	1.45	1.80	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V	–	–	10	μA
Power Output	PO	I <sub>F</sub> =50mA	1.60	2.70	–	mW
Half Intensity Beam Angle	θ	–	–	± 2°	–	deg.
Peak Wavelength	λ <sub>p</sub>	I <sub>F</sub> =50mA	–	880	–	nm
Spectral Line Half Width	Δλ	I <sub>F</sub> =50mA	–	40	–	nm
Temp Coefficient of PO	P/T	I <sub>F</sub> =10mA	–	-.05	–	%/°C
Temp Coefficient of VF	V/T	I <sub>F</sub> =10mA	–	-1.60	–	mV/°C
Junction Capacitance	C <sub>j</sub>	1MHz, V=0V	–	65	–	pF
Cut-Off Frequency	f <sub>c</sub>	I <sub>FP</sub> =50mA+20mAp-p	--	6	–	MHz



**MTPS9087P Graphs**

