

## Peak Emission Wavelength: 850nm

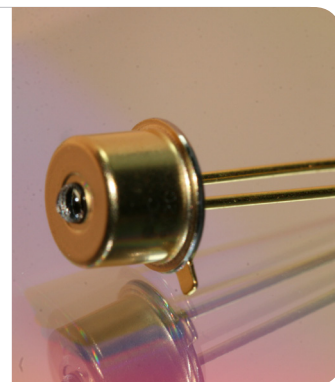
The 850nm IR emitter series is designed for applications requiring high output and precise optical / mechanical axis alignment. Custom package solutions and sorting are available.

### FEATURES

- > Metal Can Package
- > High Output Power
- > Point source emitter, 50um diameter glass ball

### APPLICATIONS

- > Optical Switches
- > Security Systems
- > Fiber Optical Communications



## Absolute Maximum Ratings (Ta=25°C)

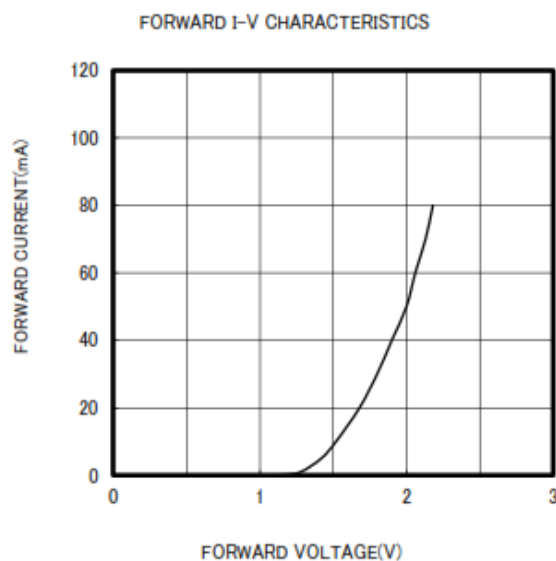
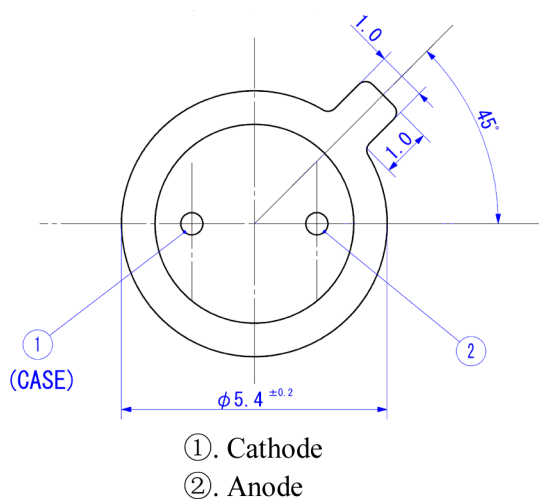
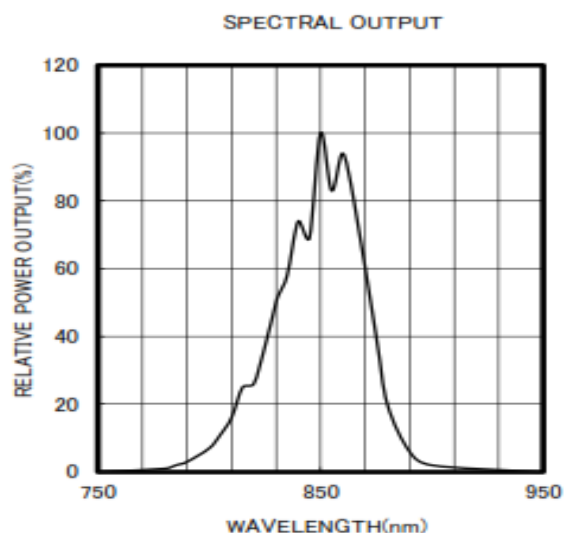
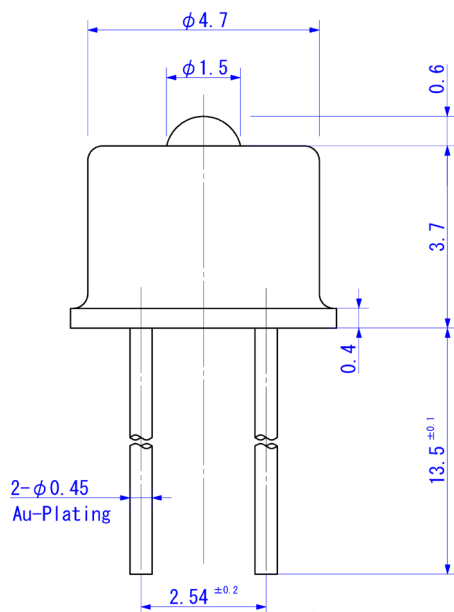


| ITEMS                        | SYMBOL | RATINGS    | UNIT |
|------------------------------|--------|------------|------|
| Forward Current (DC)         | IF     | 80         | mA   |
| Forward Current (Pulse)*1    | IFP    | 0.4        | A    |
| Reverse Voltage              | VR     | 5          | V    |
| Power Dissipation            | PD     | 150        | mW   |
| Operating Temperature Range  | Topr   | -30 ~ +85  | °C   |
| Storage Temperature Range    | Tstg   | -40 ~ +100 | °C   |
| Lead Soldering Temperature*2 | Tls    | 260        | °C   |

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

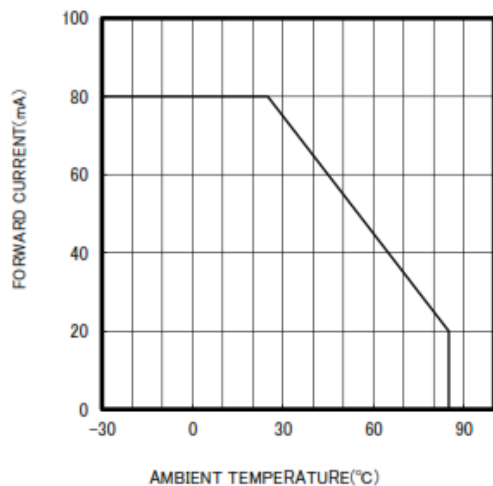
## Electrical & Optical Characteristics (Ta = 25°C)

| ITEMS                     | SYMBOL | CONDITIONS | MIN | TYP | MAX | UNIT |
|---------------------------|--------|------------|-----|-----|-----|------|
| Power Output              | PO     | IF=50mA    | 2.5 | 3.4 | --  | mW   |
| Forward Voltage           | VF     | IF=50mA    | --  | 2.0 | 2.4 | V    |
| Reverse Current           | IR     | VR=5V      | --  | --  | 10  | μA   |
| Peak Emission Wavelength  | λp     | IF=50mA    | --  | 850 | --  | nm   |
| Spectral Line Half Width  | Δλ     | IF=50mA    | --  | 45  | --  | nm   |
| Half Intensity Beam Angle | Θ      | IF=50mA    | --  | ±15 | --  | deg  |
| Switching Times           | Tr, Tf | IF=20mA    | --  | 5~7 | --  | ns   |

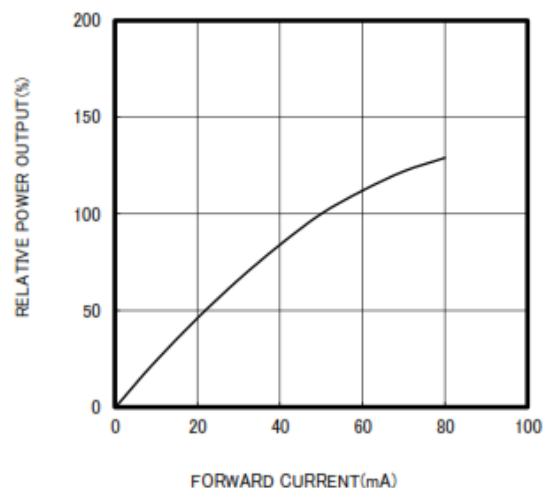


Unit: mm, Tolerance:  $\pm 0.2$

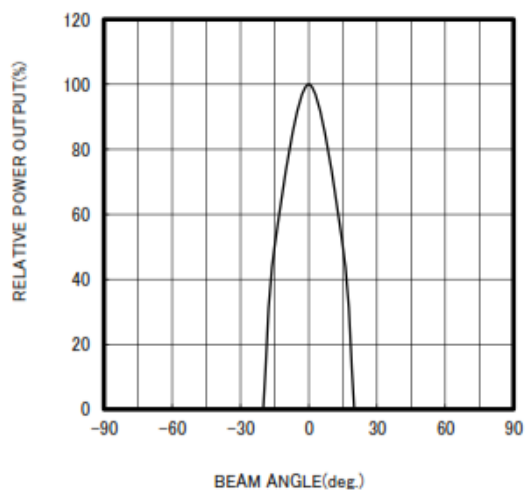
THERMAL DERATING CURVE



RELATIVE POWER vs FORWARD CURRENT



RADIATION PATTERN



# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Marktech Optoelectronics:](#)

[MTPS5085BSL](#)