

## Peak Emission Wavelength: 870nm

The 870nm IR emitter series is designed for applications requiring high output and precise optical / mechanical axis alignment. Custom package solutions and sorting are available..

### FEATURES

- > High Output Power
- > Wide Beam Angle
- > High Reliability

### APPLICATIONS

- > Optical Switches & Sensors
- > Fiber Optical Communication
- > Bar-code Reader



## 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   | -20 ~ +80  | °C   |
| Storage Temperature Range    | Tstg   | -30 ~ +100 | °C   |
| Junction Temperature         | Tj     | 100        | °C   |
| Lead Soldering Temperature*2 | Tls    | 320        | °C   |

\*1: Tw=10μsec, T=10msec. \*2: Time 5Sec 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    | --  | 29   | --  | mW   |
| Forward Voltage           | VF     | IF=50mA    | --  | 1.45 | --  | V    |
| Reverse Current           | IR     | VR=5V      | --  | --   | 10  | μA   |
| Peak Emission Wavelength  | λp     | IF=50mA    | --  | 870  | --  | nm   |
| Spectral Line Half Width  | Δλ     | IF=50mA    | --  | 45   | --  | nm   |
| Half Intensity Beam Angle | Θ      | IF=50mA    | --  | ±60  | --  | deg  |



