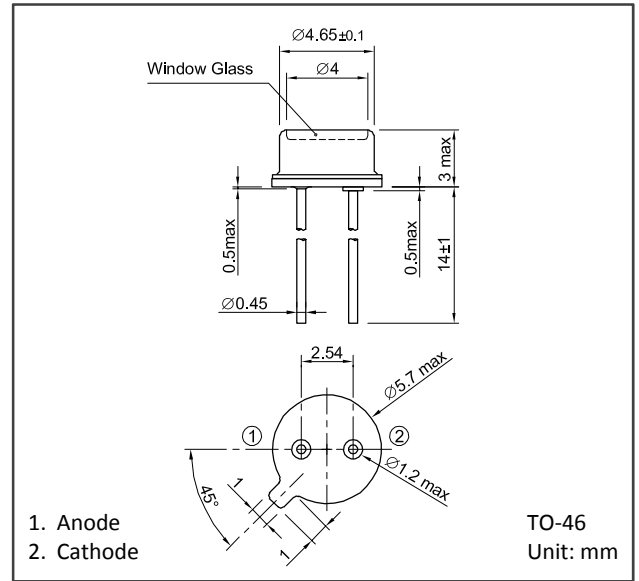


**Features**

- 160μm emitting area
- High reliability and long life

**Applications**

- High speed optical sensors
- Optical encoders



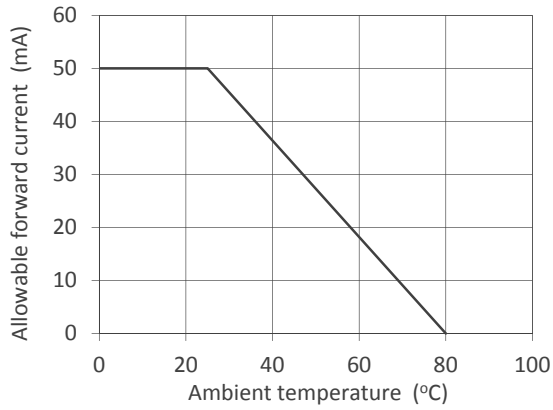
**Absolute Maximum Ratings**

| Parameter             | Symbol    | Value       | Unit               | Note                     |
|-----------------------|-----------|-------------|--------------------|--------------------------|
| Forward current       | $I_F$     | 50          | mA                 | $T_a=25^{\circ}\text{C}$ |
| Reverse voltage       | $V_R$     | 3           | V                  |                          |
| Operating temperature | $T_{opr}$ | -20 to +80  | $^{\circ}\text{C}$ | Avoid dew condensation   |
| Storage temperature   | $T_{stg}$ | -30 to +100 | $^{\circ}\text{C}$ | Avoid dew condensation   |

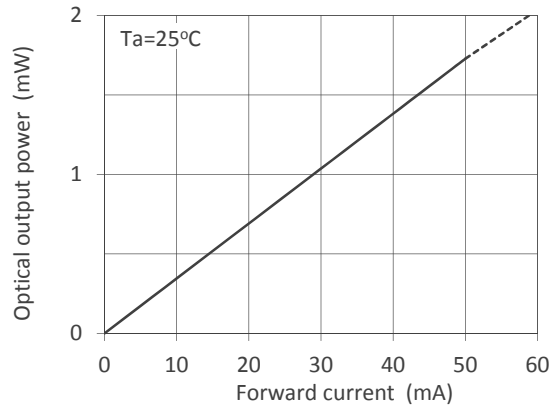
**Electrical and Optical Characteristics ( $T_a=25^{\circ}\text{C}$  unless otherwise noted)**

| Parameter                | Symbol      | Min. | Typ. | Max. | Unit          | Test Condition    |
|--------------------------|-------------|------|------|------|---------------|-------------------|
| Forward voltage          | $V_F$       | -    | 2.2  | 2.5  | V             | $I_F=20\text{mA}$ |
| Reverse current          | $I_R$       | -    | -    | 10   | $\mu\text{A}$ | $V_R=3\text{V}$   |
| Optical output power     | $P_O$       | -    | 0.8  | -    | mW            | $I_F=20\text{mA}$ |
| Peak emission wavelength | $\lambda_p$ | -    | 650  | -    | nm            | $I_F=20\text{mA}$ |
| Cutoff frequency         | $f_C$       | -    | 20   | -    | MHz           | $I_F=20\text{mA}$ |

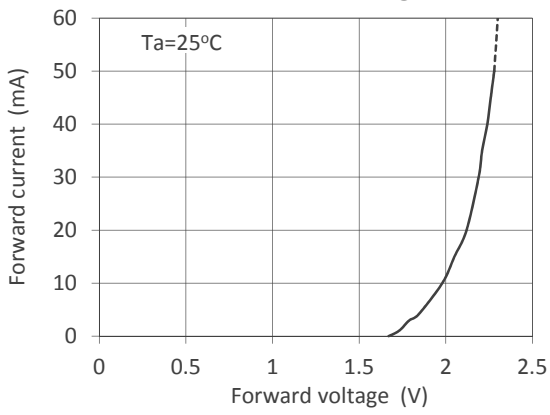
Allowable Forward Current-Ambient Temperature



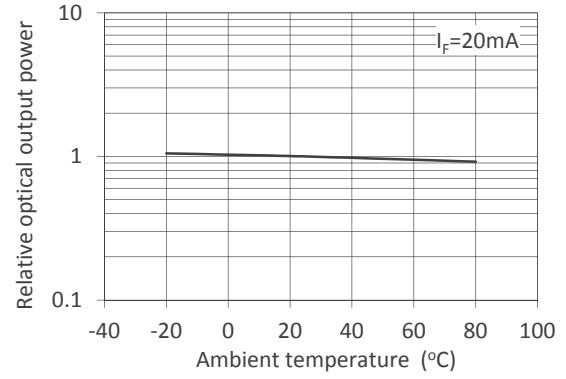
Optical Output Power - Forward Current



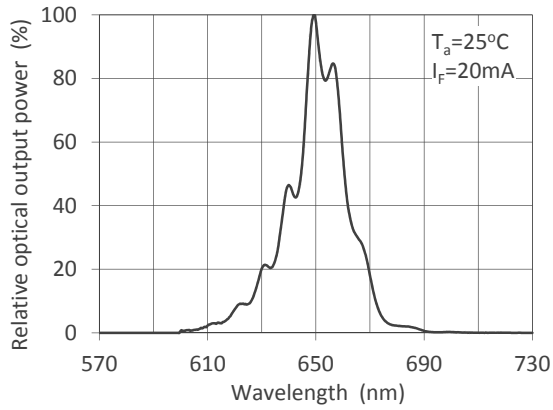
Forward Current - Forward Voltage



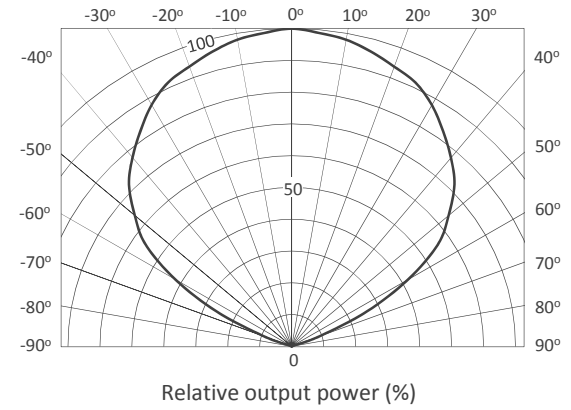
Relative Optical Output Power - Ambient Temperature



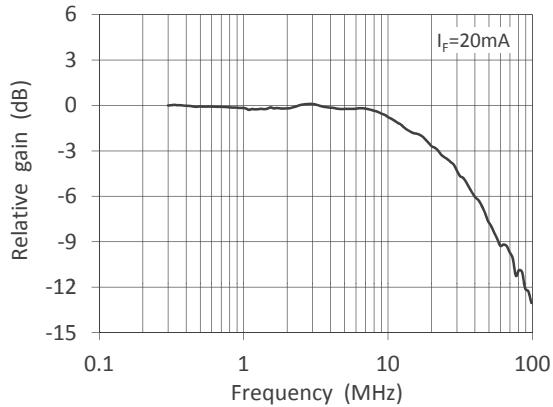
Spectral Distribution



Directivity



Frequency Response



- Specifications , characteristics, data, materials, structures specified in this datasheet are subject to change without notice. Please refer to the latest specification before use of the products.
- Products listed in this datasheet comply with the RoHS Directive (EU2002/95/EC).

**Opto-technologies for the Future**



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## KYOSEMI CORPORATION

<http://www.kyosemi.co.jp/>

**Headquarters :** 949-2 Ebisucho Fushimi-ku, Kyoto 612-8201 Japan

TEL: +81-75-605-7311

**Tokyo Sales Office:** 24<sup>th</sup> Sky Bldg.2F, 1-34-3 Shinjuku Shinjuku-ku, Tokyo 160-0022 Japan

TEL: +81-3-5312-5360

**Kansai Sales Office:** 949-2 Ebisucho Fushimi-ku, Kyoto 612-8201 Japan

TEL: +81-75-605-7311

**Kyosemi Opto America Corp:** 4655 Old Ironsides Suite 230 Santa Clara, California 95054 USA

TEL: +1-408-492-9361

**Eniwa Operation:** 358-31 Toiso Eniwa-shi, Hokkaido 061-1405 Japan

TEL: +81-123-34-3111

**Kamisunagawa Operation:** 70-1 Kamisunagawa Kamisunagawa-cho Sorachi-gun, Hokkaido 073-0200 Japan

TEL: +81-125-62-3611