

## Model 310-SF-02 series Bare Die (Flip chip form, AuSn Pad)

### Typical Optical-Electrical Characteristics

( $I_F=20\text{mA}$ ,  $T_a=25^\circ\text{C}$ )

| Item                       | Symbol          | Unit | 310-SF-02-C |     |     |
|----------------------------|-----------------|------|-------------|-----|-----|
|                            |                 |      | Min         | Typ | Max |
| Peak Wavelength            | $\lambda_p$     | nm   | 305         | 310 | 315 |
| Radiant Flux               | $P_o$           | mW   | -           | 4.8 | -   |
| Full Width at Half Maximum | $\Delta\lambda$ | nm   | -           | 15  | -   |
| Forward Voltage            | $V_F$           | V    | -           | 5.0 | -   |

( $I_F=50\text{mA}$ ,  $T_a=25^\circ\text{C}$ )

| Item                       | Symbol          | Unit | 310-SF-02-C |     |     |
|----------------------------|-----------------|------|-------------|-----|-----|
|                            |                 |      | Min         | Typ | Max |
| Peak Wavelength            | $\lambda_p$     | nm   | 305         | 310 | 315 |
| Radiant Flux               | $P_o$           | mW   | -           | 12  | -   |
| Full Width at Half Maximum | $\Delta\lambda$ | nm   | -           | 15  | -   |
| Forward Voltage            | $V_F$           | V    | -           | 5.6 | -   |

(\*)Peak Wavelength Measurement tolerance is  $\pm 3\text{nm}$ .


(\*\*)Radiant Flux Measurement tolerance is  $\pm 10\%$ .

Binning is available.

Specification and dimension are subject to change for improvement without notice.

### Absolute Maximum Ratings

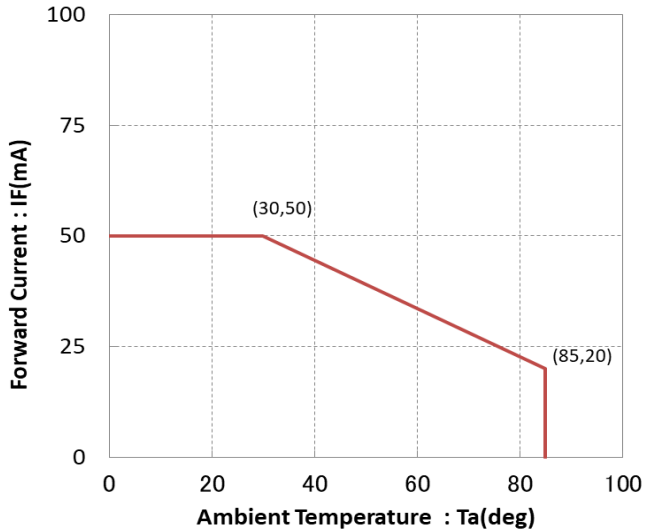
| Item                  | Symbol    | Unit             | Value                       |
|-----------------------|-----------|------------------|-----------------------------|
| Forward Current       | $I_F$     | mA               | 50                          |
| Junction Temperature  | $T_J$     | $^\circ\text{C}$ | 90                          |
| Operating Temperature | $T_{OPR}$ | $^\circ\text{C}$ | -30 ~ +85                   |
| Storage Temperature   | $T_{STR}$ | $^\circ\text{C}$ | -40 ~ +85 (No condensation) |

|  |                         |
|--|-------------------------|
|   | <p><b>⚠ WARNING</b></p> |
| <ul style="list-style-type: none"> <li>• LEDs emit very strong UV radiation.</li> <li>• Do not look at the LED light with the naked eye or irradiate the skin.<br/>UV radiation can harm your eyes and skin.</li> <li>• To prevent UV radiation exposure, wear protective eyewear and protective equipment.</li> <li>• If LEDs are embedded in devices, please indicate warning labels against the UV light LED used.</li> <li>• Keep out of reach of children.</li> </ul> |                         |

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### Derating Curve



**Notes:**

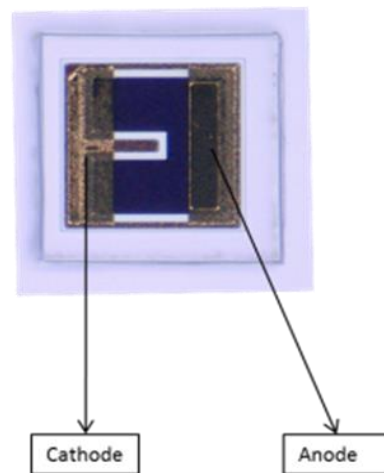
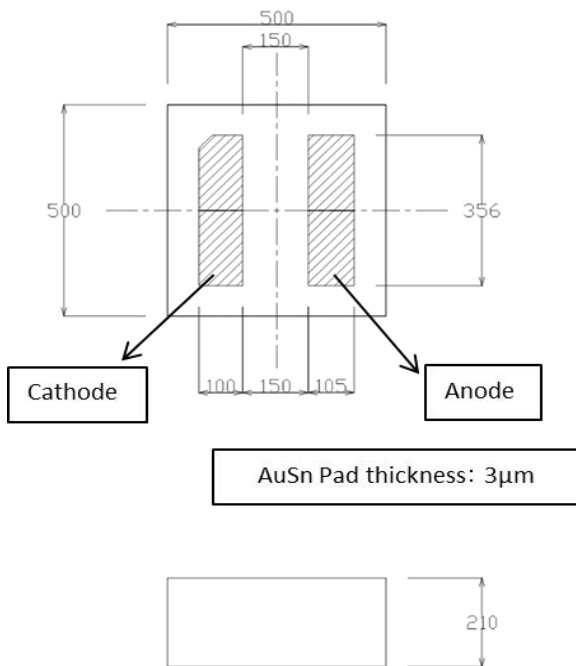
Maximum ratings and derating curve strongly depend on assembly materials.

The above ratings and derating curve were determined using AlN submount, Al substrate and heatsink. Ratings may be different for other materials and environment.

### Product ID, Physical dimensions and Sample photo

#### 310-SF-02-C

Bare die

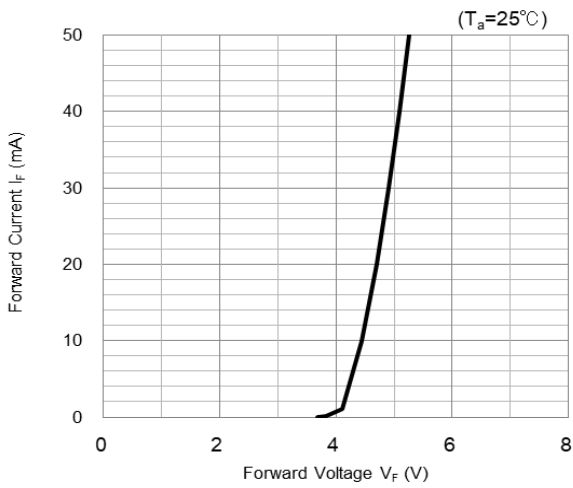


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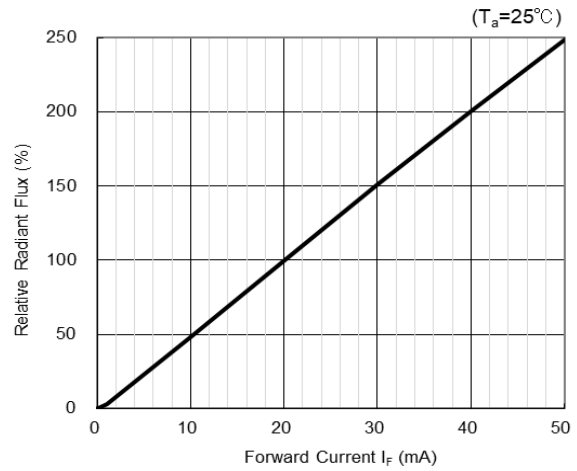
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**Reference Data(1)**

**Forward Voltage vs Forward Current**



**Forward Current vs Radiated Flux**



**Spectrum**

