

EPIGAP Optronik GmbH

Koepenicker Str. 325b
 D-12555 Berlin
 Fon: +49 (0)30 657637 60
 Fax: +49 (0)30 657637 70
 sales@epigap-optronic.de



Data Sheet

page 1 of 4

Infrared SMD-LED

EOLS-765-496

Rev. 01, 2017

| Radiation | Type | Case |
|-----------|--------|-----------------|
| Infrared | AlGaAs | SMD 3838 (1515) |

Description:

- Size 3.8 (W) x 3.8 (L) x 1.0 (H) mm
- Circuit substrate: AlN ceramics
- Devices are RoHS conform
- Lead free solderable, soldering pads: silver plated
- High radiation intensity

Maximum Ratings

$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified



| Parameter | Test conditions | Symbol | Value | Unit |
|-----------------------------------|--|------------|------------|--------------------|
| Forward current | | I_F | 350 | mA |
| Peak forward current | $t_p \leq 100 \mu\text{s}$, $\tau = 1:10$ | I_{FM} | 500 | mA |
| Reverse current | $V_R = 5 \text{ V}$ | I_R | 100 | μA |
| Reverse voltage | $I_R = 100 \mu\text{A}$ | V_R | 5 | v |
| Storage and operating temp. range | | T_{stg} | -40 to +85 | $^{\circ}\text{C}$ |
| Thermal resistance | | R_{thJA} | 10 | K/W |

Optical and Electrical Characteristics

$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

| Parameter | Symbol | Conditions | Min | typ | max | Unit |
|-------------------|-----------------------|------------------------|-----|-----|-----|-------|
| Forward voltage | V_F | $I_F = 350 \text{ mA}$ | | 1.7 | 2.2 | V |
| Radiant power | Φ_e | $I_F = 350 \text{ mA}$ | | 44 | | mW |
| Radiant Intensity | I_e | $I_F = 350 \text{ mA}$ | 10 | 15 | | mW/sr |
| Peak wavelength | λ_p | $I_F = 350 \text{ mA}$ | 755 | 765 | 775 | nm |
| FWHM | $\Delta\lambda_{0,5}$ | $I_F = 350 \text{ mA}$ | | 29 | | nm |

We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

EPIGAP Optronic GmbH

Koepenicker Str. 325b
D-12555 Berlin
Fon: +49 (0)30 657637 60
Fax: +49 (0)30 657637 70
sales@epigap-optronic.de



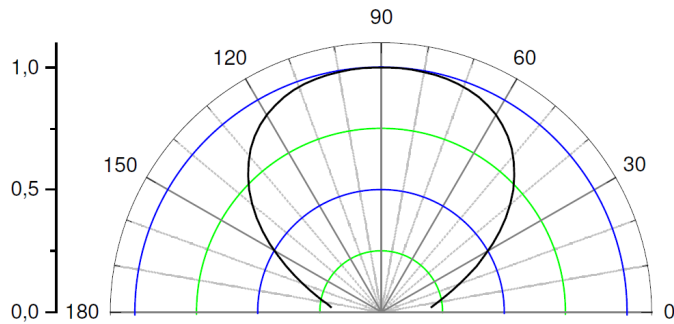
Data Sheet

Infrared SMD-LED

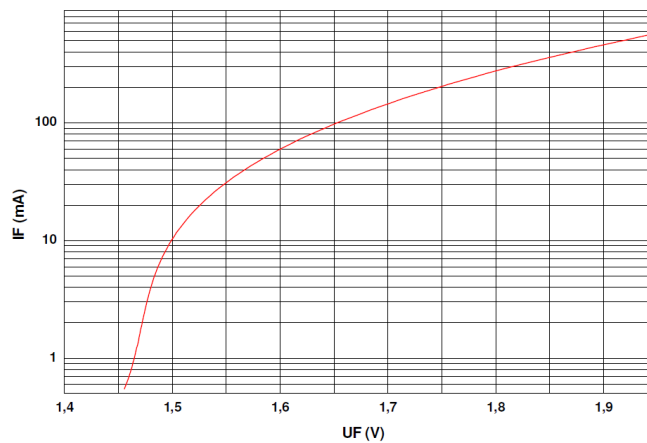
EOLS-765-496

page 2 of 4
Rev. 01, 2017

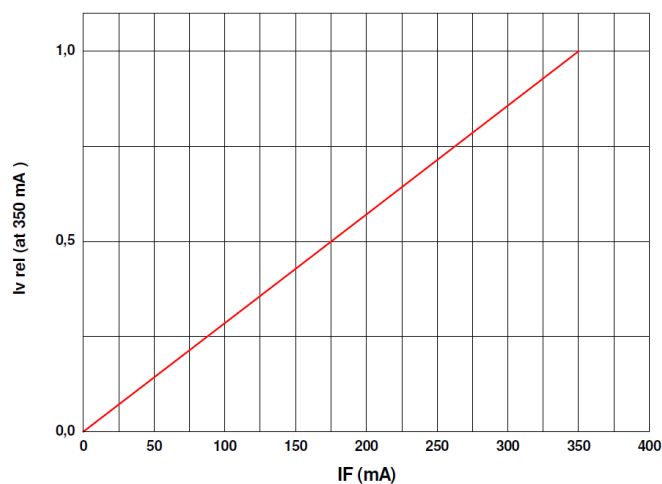
Radiation pattern



$I_F - U_F$ characteristic



$I_{e, rel} - I_F$ characteristic



We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

EPIGAP Optronic GmbH

Koepenicker Str. 325b
 D-12555 Berlin
 Fon: +49 (0)30 657637 60
 Fax: +49 (0)30 657637 70
 sales@epigap-optronic.de



Data Sheet

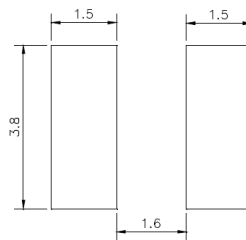
page 3 of 4

Infrared SMD-LED

EOLS-765-496

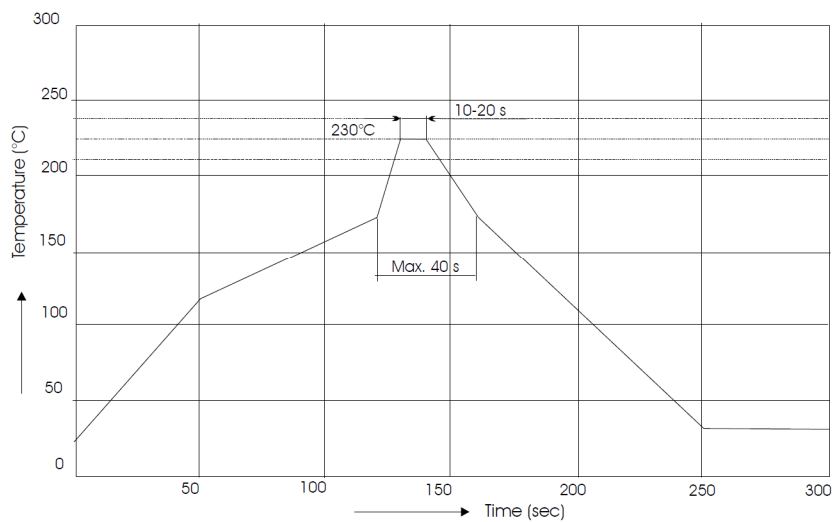
Rev. 01, 2017

Recommended Soldering Patterns

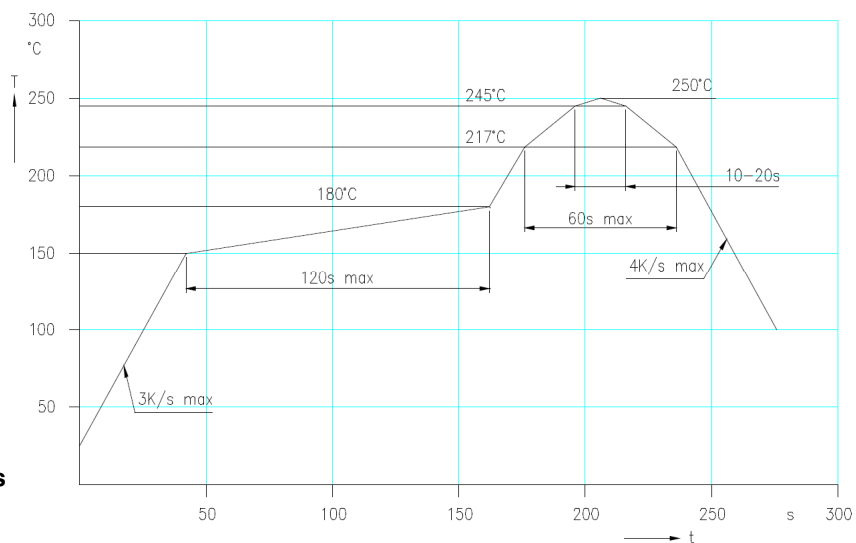


recommended max. thermal resistance
 device-ambient: 20 K/W

IR reflow soldering profile



IR reflow soldering profile for lead free soldering



Manual soldering:
 max power of iron 25 W / 3 s
 300°C

We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

EPIGAP Optronic GmbH

Koepenicker Str. 325b
D-12555 Berlin
Fon: +49 (0)30 657637 60
Fax: +49 (0)30 657637 70
sales@epigap-optronic.de



Data Sheet

page 4 of 4

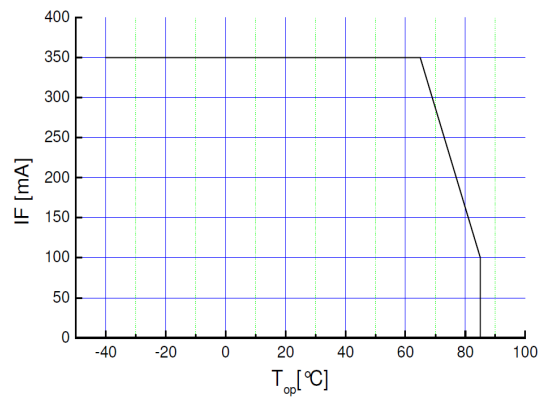
Infrared SMD-LED

EOLS-765-496

Rev. 01, 2017

Measured according to CIE 127. All SMD-LEDs are 100% measured and selected on full automated equipment with an accuracy of $\pm 11\%$.

Maximal forward current (DC) characteristic



Art. No. 133 058



We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.