

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

High Power IR LED

EOLS-1070-496

Rev. 01, 2017

Radiation	Type	Case
Infrared	GaAs	SMD 3838 (1515)

Unit: mm
Tolerance: ±0,1

Marking at cathode

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	500	mA
Peak forward current	$t \leq 100 \mu\text{s}, T = 1 \text{ ms}$	I_{FM}	1000	mA
Reverse voltage	$I_R = 100 \mu\text{A}$	I_{RM}	5	V
Operating temperature range		T_{amb}	-40 to +85	$^{\circ}\text{C}$
Storage temperature 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	$I_F = 350 \text{ mA}$		1.2	1.5	V
Radiant power	Φ_e	$I_F = 350 \text{ mA}$		38		mW
Radiant intensity	I_e	$I_F = 350 \text{ mA}$	8		17	mW/sr
Peak wavelength	λ_p	$I_F = 350 \text{ mA}$	1055	1070	1085	nm
FWHM	$\Delta\lambda_{0,5}$	$I_F = 350 \text{ mA}$		50		nm
Viewing angle	φ	$I_F = 350 \text{ mA}$		120		deg.

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 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

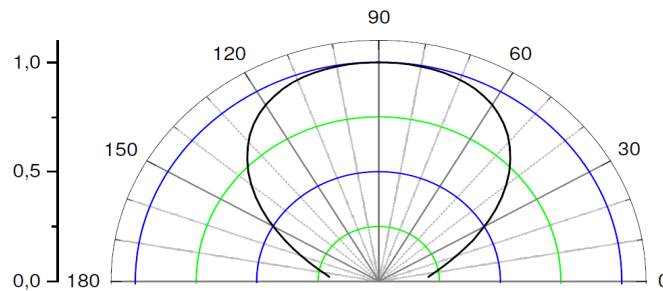
page 2 of 4

High Power IR LED

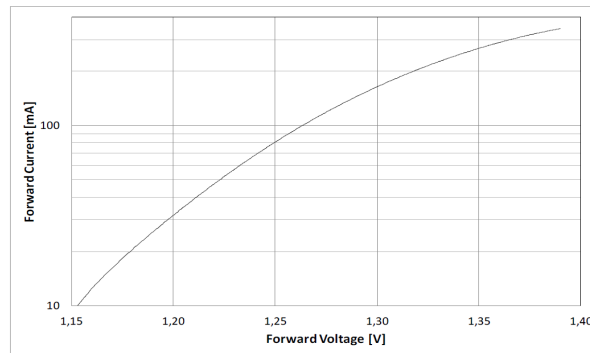
EOLS-1070-496

Rev. 01, 2017

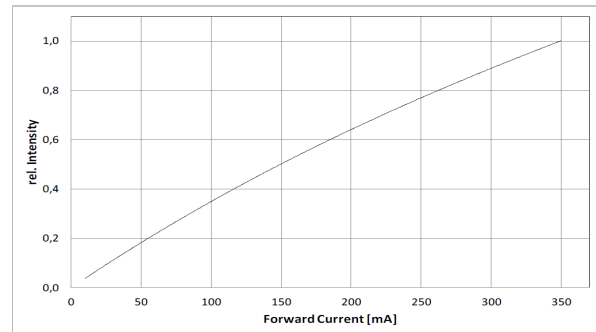
Radiation pattern



$I_F - U_F$ characteristic



$I_{e, rel} - I_F$ characteristic



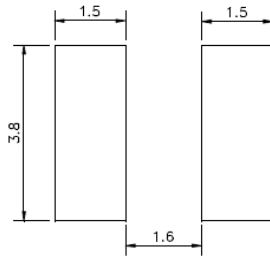
We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

Data Sheet

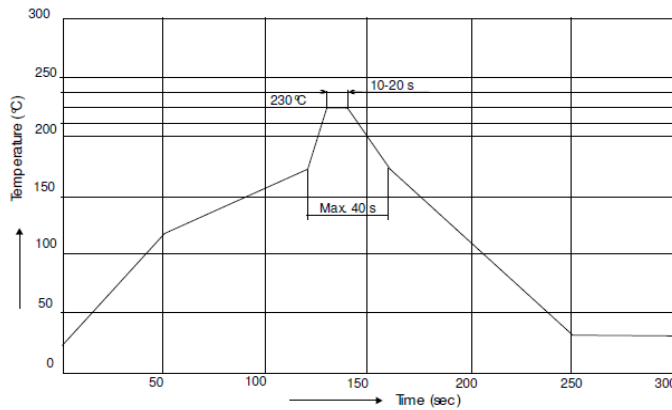
High Power IR LED

EOLS-1070-496

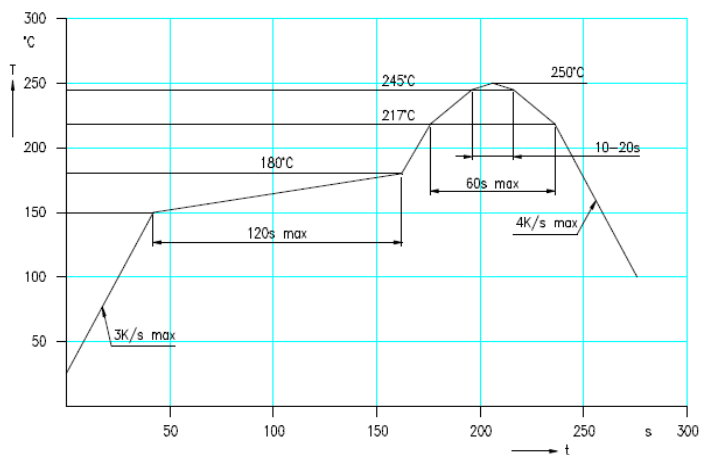
Recommended Soldering Pattern



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 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

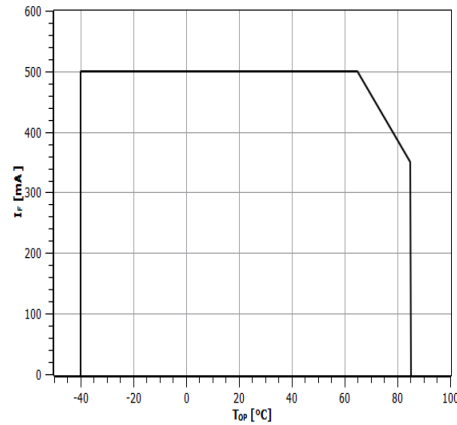
page 4 of 4

High Power IR LED

EOLS-1070-496

Rev. 01, 2017

**Maximal
forward
current (DC)
characteristic**



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

Art. No. 133 186



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.