

EPIGAP Optronik GmbH

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Data Sheet

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Deep Red SMD-LED

EOLS-690-496

Rev. 01, 2017

Radiation	Type	Case
Deep red	AlGaAs/AlGaAs	SMD 3838 (1515)

<p>Description:</p> <ul style="list-style-type: none"> - 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 - Marking at cathode 	

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}	350	mA
Reverse voltage		V_R	5	V
Reverse current		I_R	100	μA
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	$I_F = 350 \text{ mA}$		1.95	2.2	V
Radiant intensity	I_e	$I_F = 350 \text{ mA}$		17		mW/sr
Radiant power	Φ_e	$I_F = 350 \text{ mA}$		45		mW
Peak wavelength	λ_p	$I_F = 350 \text{ mA}$	680	690	700	nm
FWHM	$\Delta\lambda_{0,5}$	$I_F = 350 \text{ mA}$		25		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.

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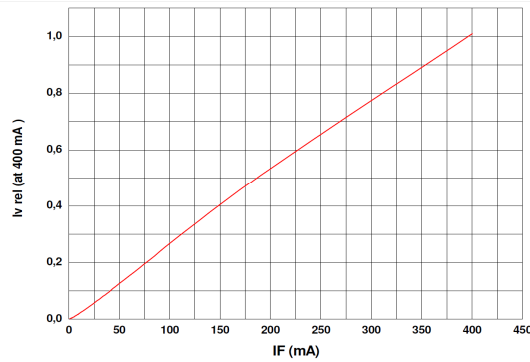


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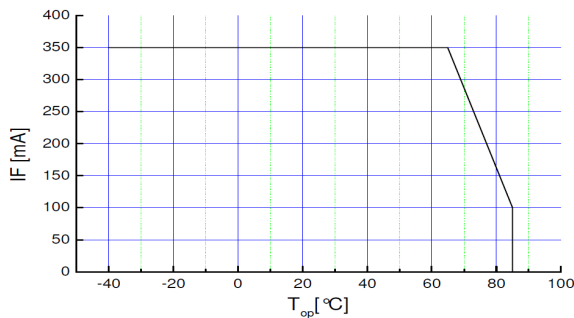
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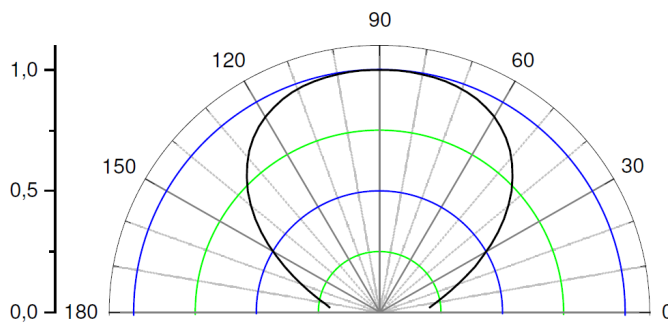
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Intensity vs. Forward Current



Forward Current vs. Operating Temperature



View Angle



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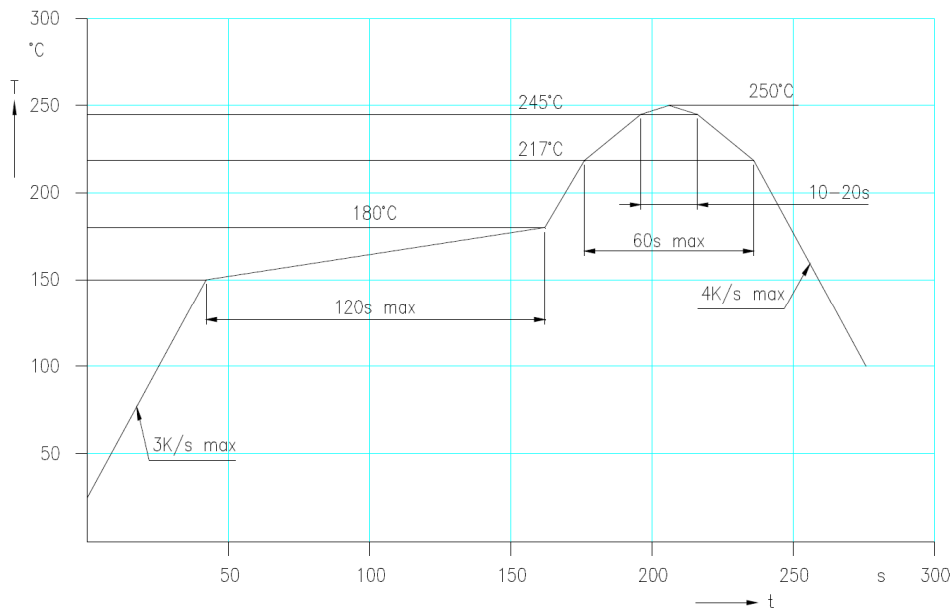
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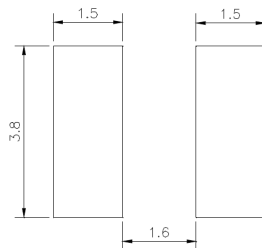
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IR reflow soldering
profile for lead free
soldering



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

Recommended Soldering Pattern

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

Art. No. 133 181



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