

EPIGAP Optronik GmbH

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Data Sheet

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SMD-LED side view

EOLS-880-590

Rev. 03, 2017

Radiation	Type	Case
infrared	side view	SMD 3018 (1008)

<p>Unit: mm Tolerance: $\pm 0,1$</p> <p>Soldering Pad for Stabilization (without contact) Marking Back side</p>	<p style="text-align: center;">Description:</p> <ul style="list-style-type: none"> - Size 1008: 3.0 (L) x 1.8 (W) x 1.0 (H) mm - Circuit substrate: glass laminated epoxy - Devices are RoHS conform - Lead free solderable, soldering pads: gold plated - Marking at cathode
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Maximum Ratings

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

Parameter	Test Conditions	Symbol	Value	Unit
Peak forward current	$t_p \leq 100 \mu\text{s}, \tau = 1:10$	I_{FP}	250	mA
Continuous forward current		I_F	50	mA
Reverse voltage		V_R	5	V
Operating temperature range		T_{amb}	-40 to +85	$^{\circ}\text{C}$
Storage temperature range		T_{stg}	-55 to +85	$^{\circ}\text{C}$
Thermal resistance		R_{thJA}	500	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	$I_F = 50 \text{ mA}$		1.4	1.7	V
Reverse current	I_R	$V_R = 5 \text{ V}$			100	μA
Radiant power	Φ_e	$I_F = 50 \text{ mA}$		5		mW
Radiant intensity	I_e	$I_F = 50 \text{ mA}$	1.2	2.5		mW/sr
Peak wavelength	λ_p	$I_F = 50 \text{ mA}$	860	875	890	nm
Spectral bandwidth	$\Delta\lambda_{0.5}$	$I_F = 50 \text{ mA}$		40		nm
Viewing angle	ϕ	$I_F = 20 \text{ mA}$		160		deg
Rise and fall time	t_r, t_f	$I_F = 20 \text{ mA}$		20	80	ns

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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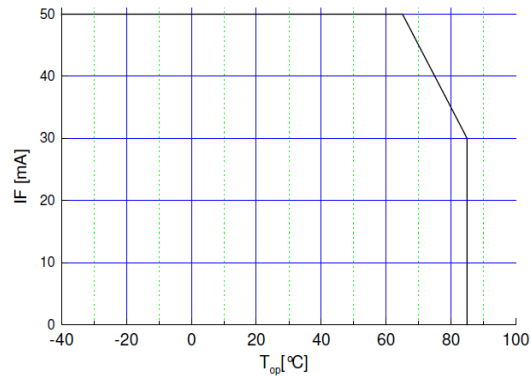
Data Sheet

SMD-LED side view

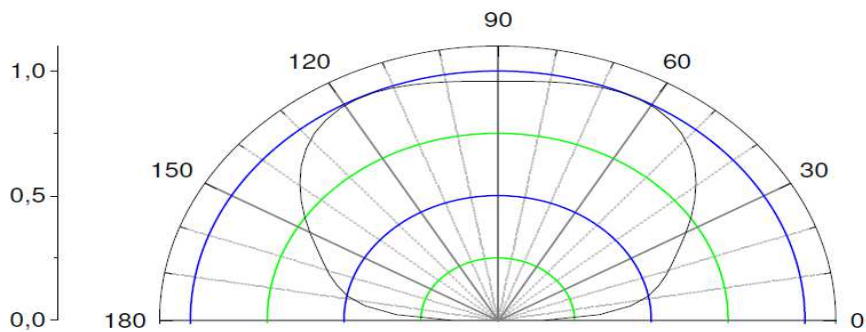
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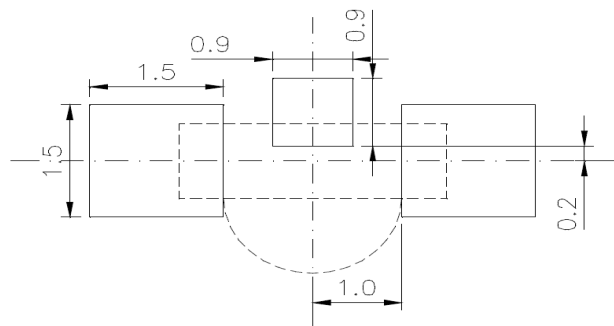
Maximal forward current (DC) characteristic



Radiation pattern



Recommended Soldering Patterns



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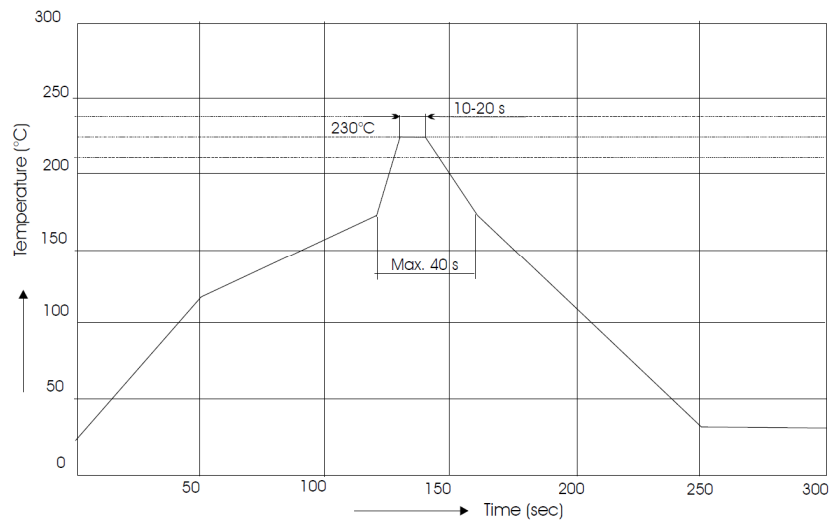
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SMD-LED side view

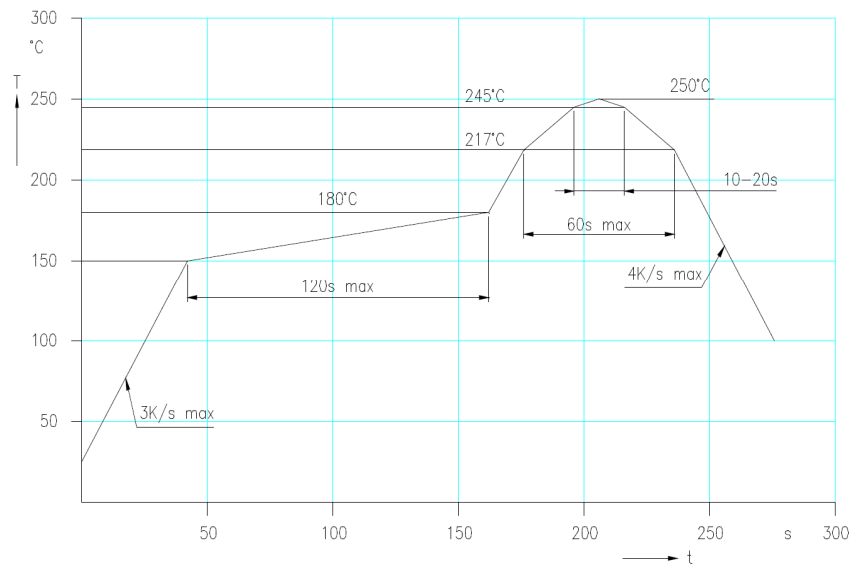
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IR reflow soldering profile



IR reflow soldering profile for lead free soldering



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

Art. No. 133 027



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