

EPIGAP Optronik GmbH

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Data Sheet

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Infrared SMD-LED

EOLS-840-843

Rev. 02, 2017

Radiation	Type	Case
Infrared	AlGaAs	SMD 3216 (1206)

Unit: mm

Description:

- Size 1206: 3.2 (L) x 1.6 (W) x 1.95 (H) mm
- Circuit substrate: glass laminated epoxy
- Devices are RoHS conform
- Lead free solderable, soldering pads: gold plated
- Marking at anode

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}	150	mA
Continuous forward current		I_F	30	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}	450	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	$I_F = 30 \text{ mA}$		1.6	2	V
Reverse current	I_R	$V_R = 5 \text{ V}$			100	μA
Radiant power	Φ_e	$I_F = 30 \text{ mA}$		13.5		mW
Radiant intensity	I_e	$I_F = 30 \text{ mA}$	5.3	7.6		mW/sr
Peak wavelength	λ_p	$I_F = 30 \text{ mA}$	830	840	850	nm
Spectral bandwidth	$\Delta\lambda_{0.5}$	$I_F = 30 \text{ mA}$		40		nm
Viewing angle	ϕ	$I_F = 30 \text{ mA}$		40		deg
Rise and fall time	t_r, t_f	$I_F = 30 \text{ mA}$		35	160	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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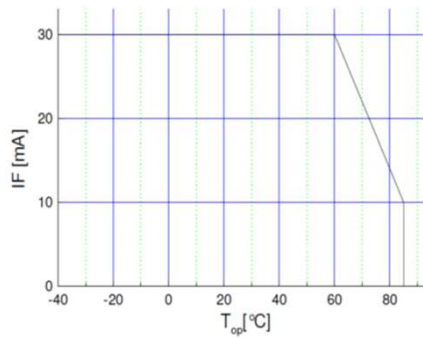
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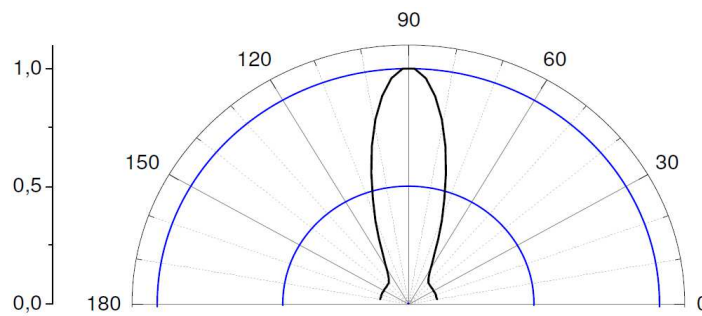
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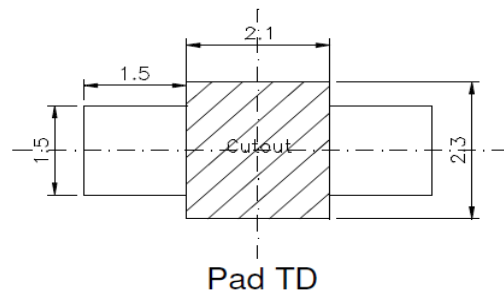
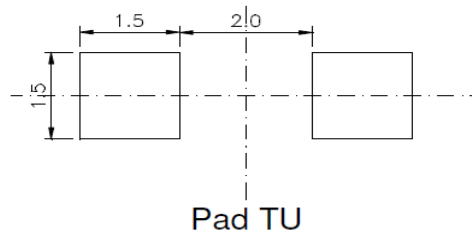
Maximal forward current (DC) characteristic



Radiation pattern



Recommended Soldering Patterns



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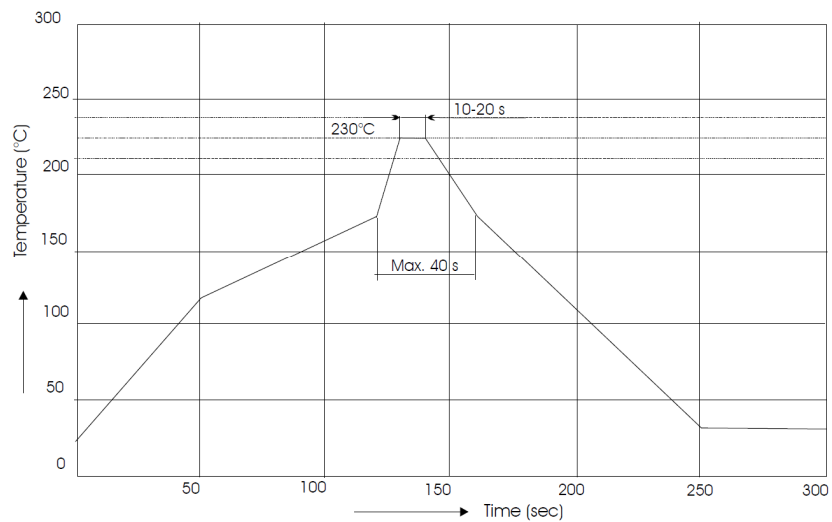
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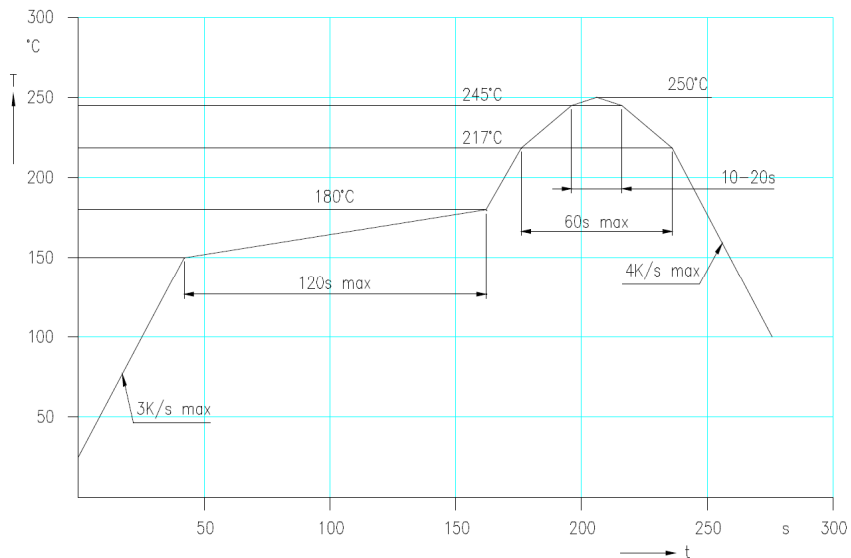
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IR reflow soldering profile



IR reflow soldering profile for lead free soldering



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

Art. No. 133 031

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