

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

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Infrared SMD-LED

EOLS-1200-843

Rev. 03, 2017

| Radiation | Type | Case |
|-----------|---------|-----------------|
| infrared | InGaAsP | 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 cathode

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} | 100 | 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} | 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 | $I_F = 50 \text{ mA}$ | | 1.0 | 1.5 | V |
| Reverse current | I_R | $V_R = 5 \text{ V}$ | | | 100 | μA |
| Radiant power | Φ_e | $I_F = 50 \text{ mA}$ | | 5 | | mW |
| Peak wavelength | λ_p | $I_F = 50 \text{ mA}$ | 1150 | 1200 | 1250 | nm |
| Spectral bandwidth | $\Delta\lambda_{0.5}$ | $I_F = 50 \text{ mA}$ | | 80 | | nm |
| Viewing angle | φ | $I_F = 50 \text{ mA}$ | | 40 | | 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.

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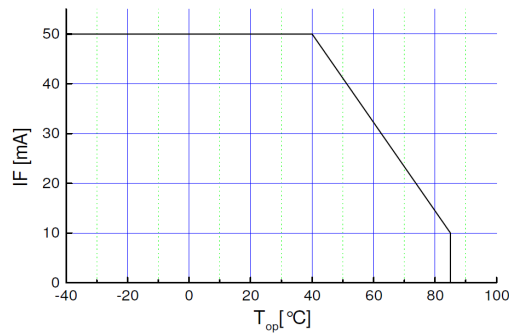
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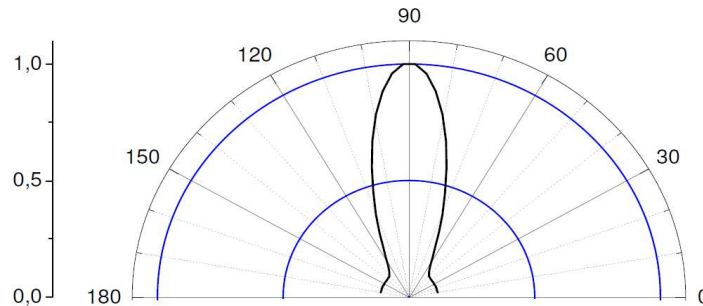
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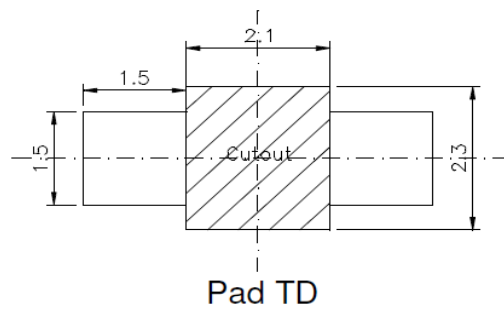
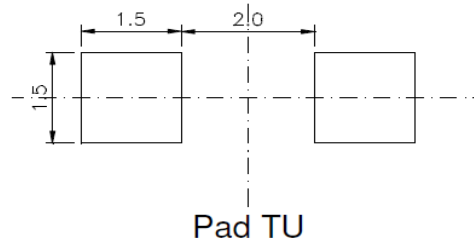
Maximal forward current (DC) characteristic



Radiation pattern



Recommended Soldering Patterns



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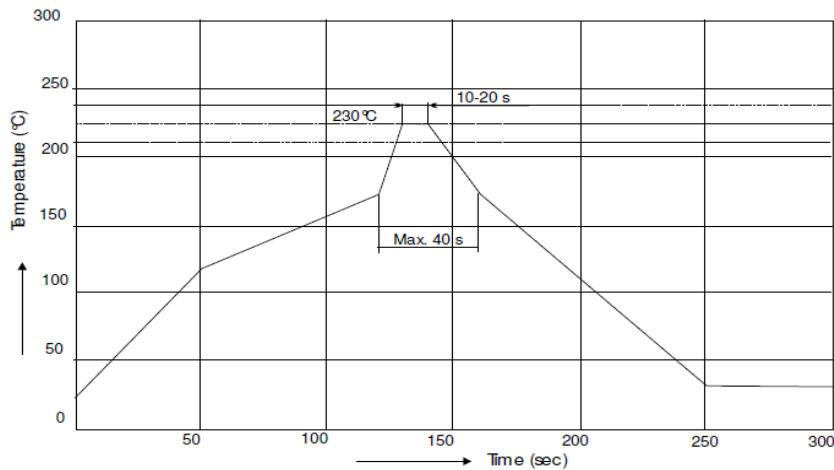
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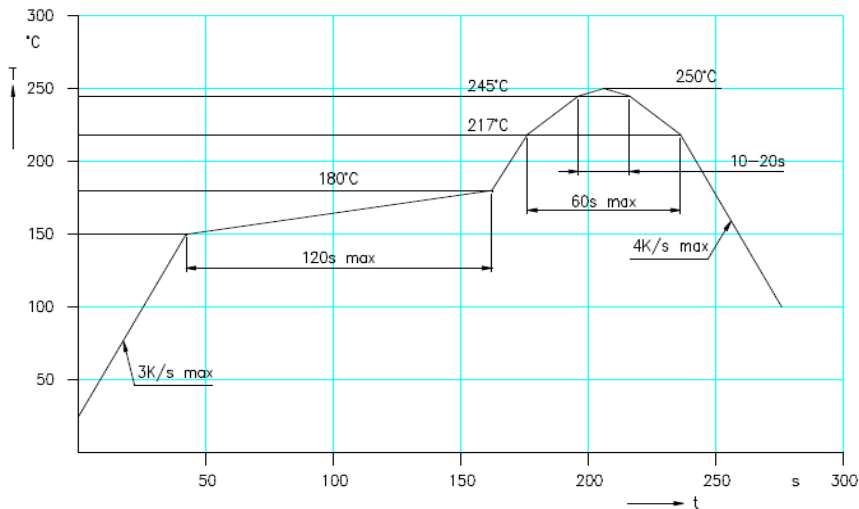
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IR reflow soldering profile



IR reflow soldering profile for lead free soldering



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

Art. No. 133 133



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