EPIGAP Optronic GmbH

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Data Sheet

Infrared SMD-LED   **EOLS-1020-843**

Radiation	Type	Case
infrared	InGaAs/InP, MQW	SMD 3216 (1206)

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°C, unless otherwise specified

Parameter	Test Conditions	Symbol	Value	Unit
Peak forward current	$t_p \leq 100$ µs, $\tau = 1{:}10$	I_{FP}	250	mA
Continous forward current		I_F	50	mA
Reverse voltage		V_R	5	V
Operating temperature range		T_{amb}	-40 to +85	°C
Storage temperature range		T_{stg}	-55 to +85	°C
Thermal resistance		R_{thJA}	500	K/W

Optical and Electrical Characteristics

T_{amb}= 25°C, unless otherwise specified

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F= 50 mA		1.3	1.5	V
Reverse current	I_R	V_R=5 V			100	µA
Radiant power	Φ_e	I_F= 50 mA		10		mW
Peak wavelength	λ_p	I_F= 50 mA	1005	1020	1035	nm
Spectral bandwidth	$\Delta\lambda_{0.5}$	I_F= 50 mA		40		nm
Switching time	t_r, t_f	I_F= 50 mA		20		ns
Viewing angle	φ	I_F=20 mA		40		deg

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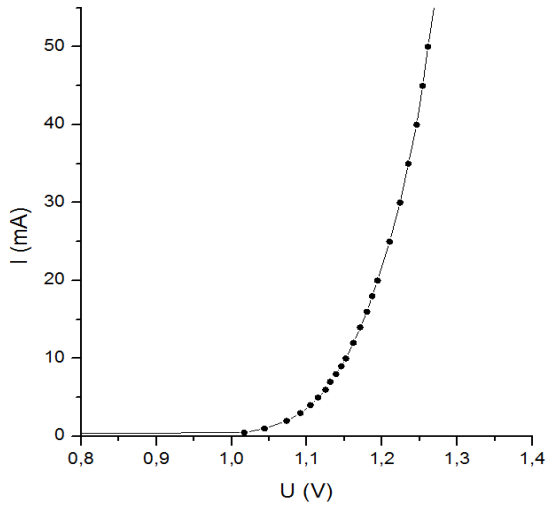
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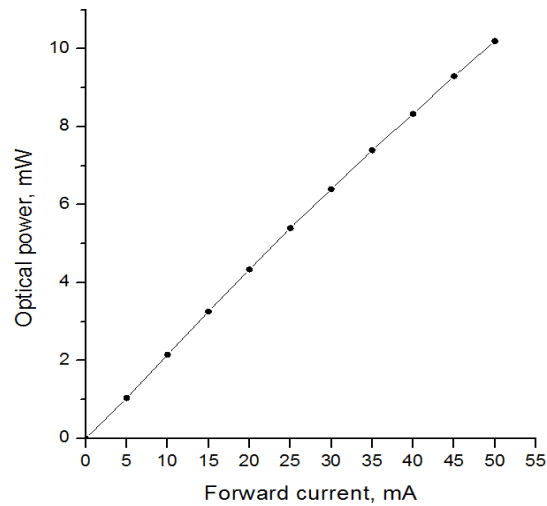
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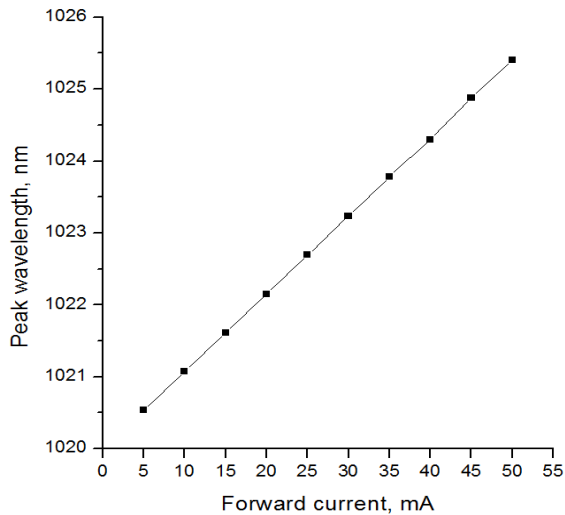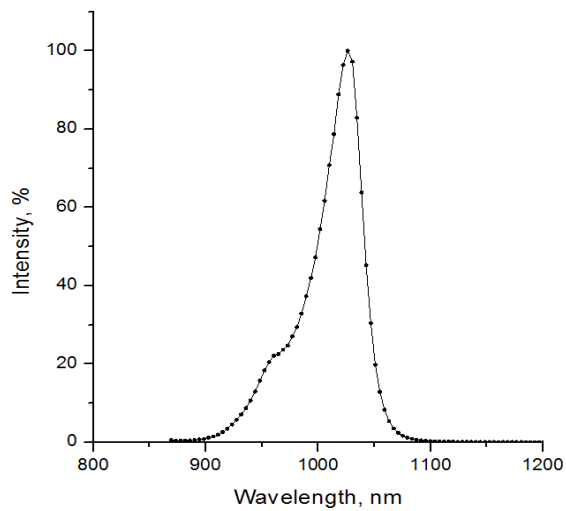## Data Sheet

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Forward current vs. voltage

Optical power vs. forward current

Peak wavelength vs. forward current

Typical spectrum at 50 mA

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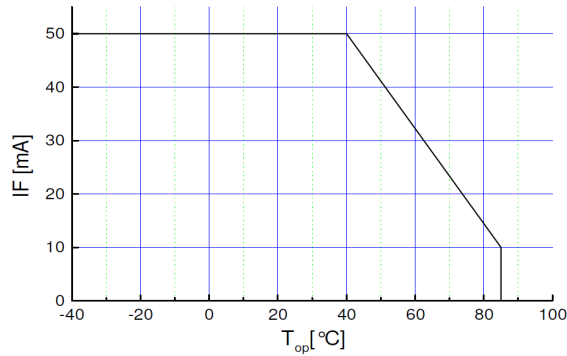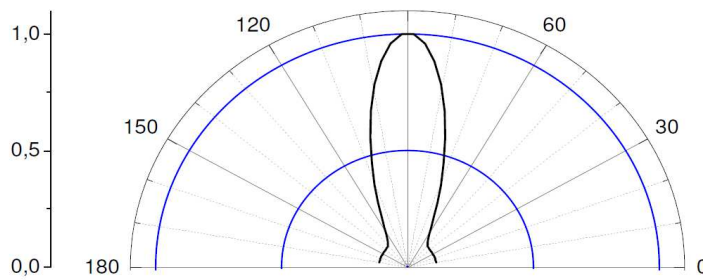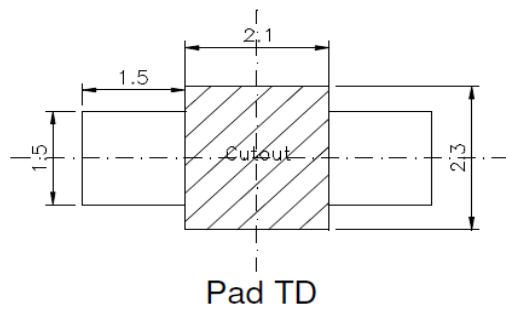
Data Sheet

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Maximal forward current (DC) characteristic

Radiation pattern

Recommended Soldering Patterns

Pad TU

Pad TD

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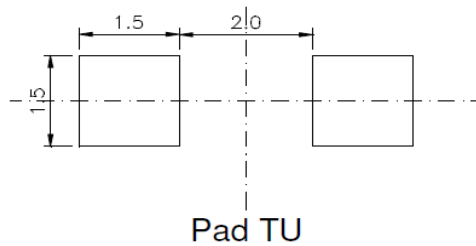
We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

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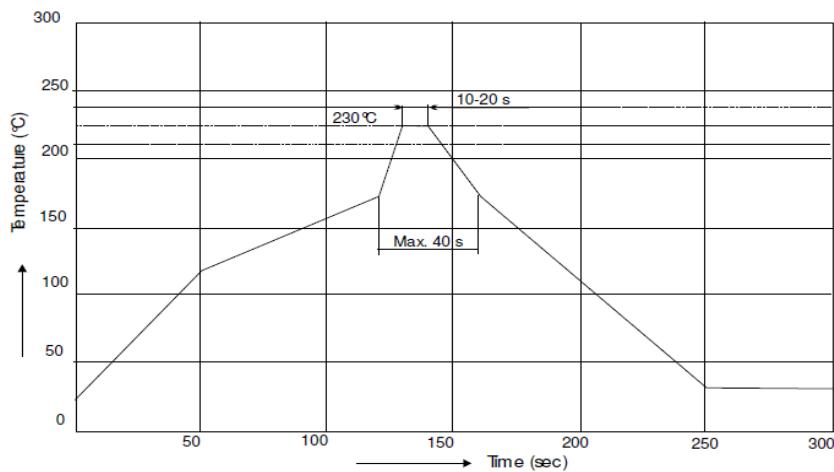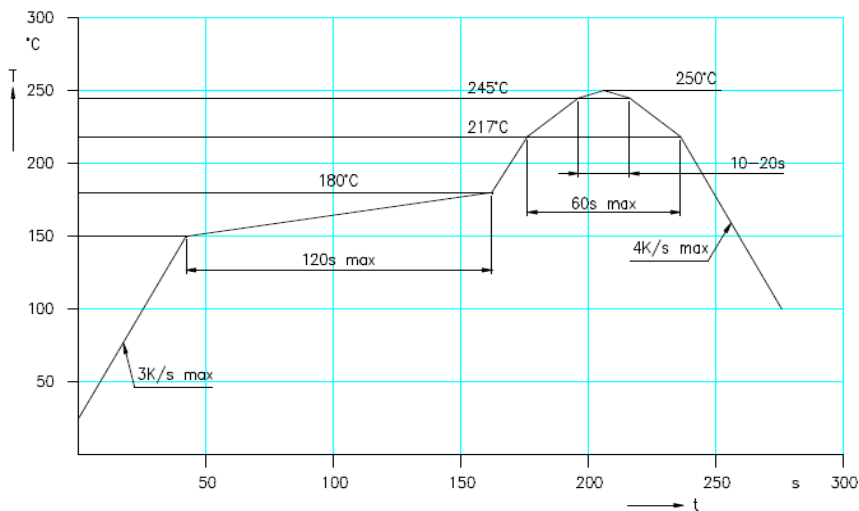Fax: +49 (0)30 657637 70

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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. 133 196

RoHS COMPLIANT   Pb Pb-Free