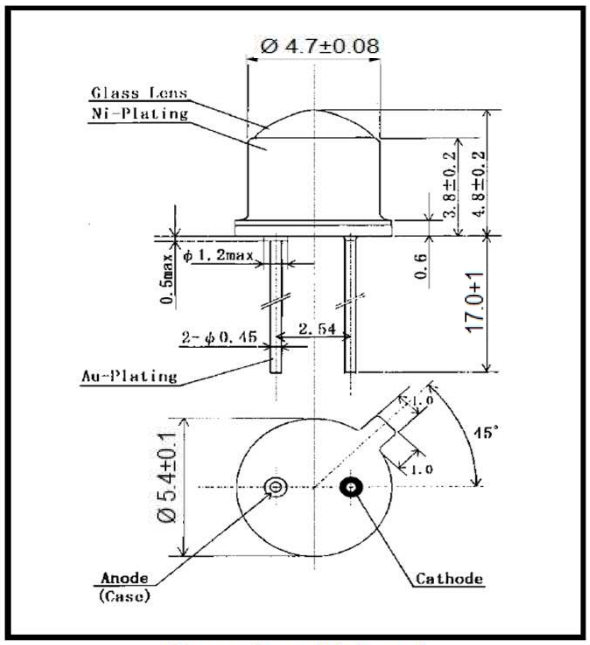
EPIGAP Optronic GmbH
Koepenicker Str. 325b
D-12555 Berlin
Fon: +49 (0)30 657637 60
Fax: +49 (0)30 657637 70
sales@epigap-optronic.de

Data sheet

Blue LED — EOLD-460-013

Rev. 09, 2016

Radiation	Type	Case
Blue	InGaN	TO-46 with lens cap



Dimensions (Unit:mm)

Description:

High output power, narrow beam angle: parallel rays (excellent), high reliability in demanding environments

Applications:

Optical communication, switches, safety equipment, automation, linear & rotary encoder, color sensor (money-bill), paper sensor (money-bill), bar-code reader.

Maximum Ratings

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

Parameter	Test Conditions	Symbol	Value	Unit
Forward current		I_F	50	mA
Peak forward current	$t_p \leq 10$ µs, T = 10 ms	I_{FM}	500	mA
Reverse voltage	I_R=100 µA	V_R	5	V
Power dissipation		P_D	120	mW
Junction temperature		T_J	150	°C
Operating temperature range	I_F=5 mA	T_{amb}	-20 to +120	°C
Storage temperature range		T_{stg}	-30 to +100	°C
Lead soldering temperature	< 5 s, 3 mm from case	T_{slg}	260	°C

RoHS COMPLIANT Pb Pb-Free

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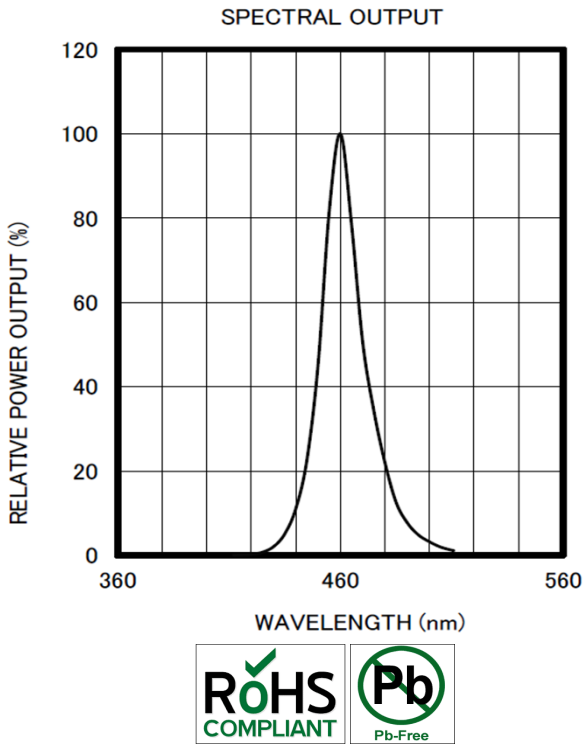
Optical and Electrical Characteristics

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F= 20 mA		3.3	3.8	V
Reverse current	I_R	V_R= 5 V			100	µA
Radiant power	Φ_e	I_F= 20 mA		8		mW
Radiant intensity	I_e	I_F= 20 mA		350		mW/sr
Luminous flux	Φ_V	I_F= 20 mA		380		mlm
Luminous intensity	I_V	I_F= 20 mA		16		cd
Peak wavelength	λ_p	I_F= 20 mA		460		nm
FWHM	$\Delta\lambda_{0,5}$	I_F= 20 mA		20		nm
Viewing angle	φ	I_F= 20 mA		±5		deg.
Temp. coefficient Φ_e	$TC\Phi_e$	I_F= 10 mA		-0.2		%/K
Temp. coefficient V_F	TCV_F	I_F= 10 mA		-3.0		mV/K
Termal resistance junction to ambient	θ_{JA}			350		K/W
Junction temperature at I_F= 5 mA	T_J	T_{amb}=120°C		127		°C



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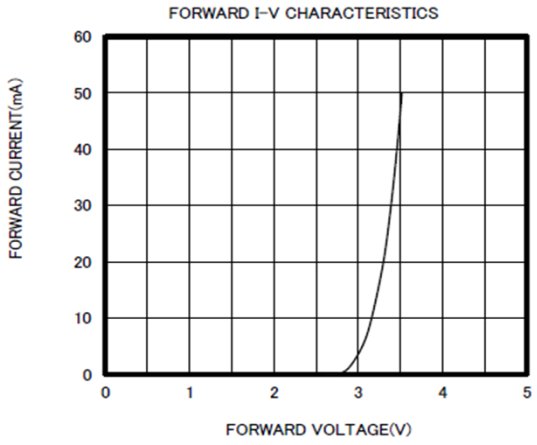

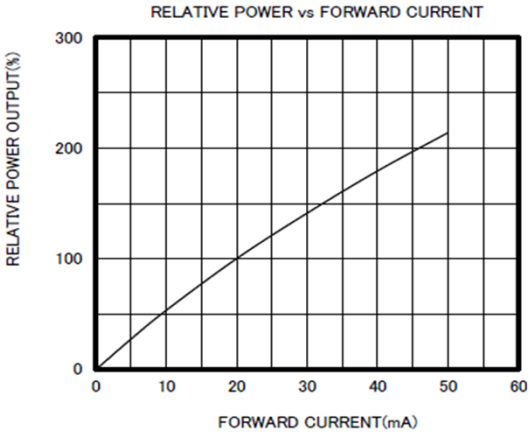

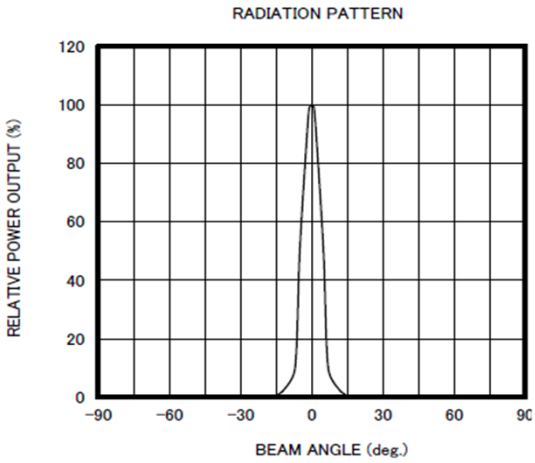

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