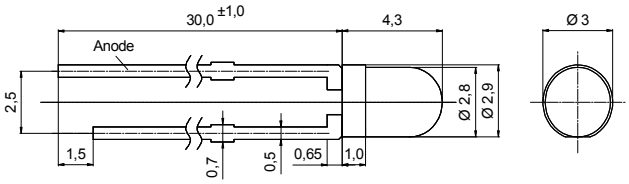
LED - Lamp

ELD-470-324

16.11.2007 rev. 02

Radiation	Type	Technology	Case
Blue	Standard	$InGaN/Al_2O_3$	3 mm plastic lens



Description

High-power, high-speed blue LED with lens, standard 3 mm package allows compact design, housing without standoff leads

Note: Special packages with standoff available on request

Applications

Optical communications, safety equipment, automation

Maximum Ratings

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

Parameter	Test conditions	Symbol	Value	Unit
Forward current (DC)		I_F	30	mA
Peak forward current	($t_P \leq 50$ µs, $t_P/T = 1/2$)	I_{FM}	300	mA
Power dissipation		P_D	120	mW
Operating temperature range		T_{amb}	-20 to +80	°C
Storage temperature range		T_{stg}	-30 to +100	°C
Soldering temperature	t ≤ 5 s, 3 mm from case	T_{Sd}	260	°C

Optical and Electrical Characteristics

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

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F = 20 mA	V_F		3.5	4	V
Reverse voltage	I_R = 100 µA	V_R	5			V
Luminous intensity	I_F = 20 mA	I_v		300		mcd
Peak wavelength	I_F = 20 mA	λ_p		468		nm
Spectral bandwidth at 50%	I_F = 20 mA	$\Delta\lambda_{0.5}$		35		nm
Viewing angle	I_F = 20 mA	φ		80		deg.
Switching time	I_F = 20 mA	t_r, t_f		40		ns

*measured after 30s current flow

Note: All measurements carried out on *EPIGAP* equipment

EPIGAP Optoelektronik GmbH, D-12555 Berlin, Köpenicker Str.325 b, Haus 201
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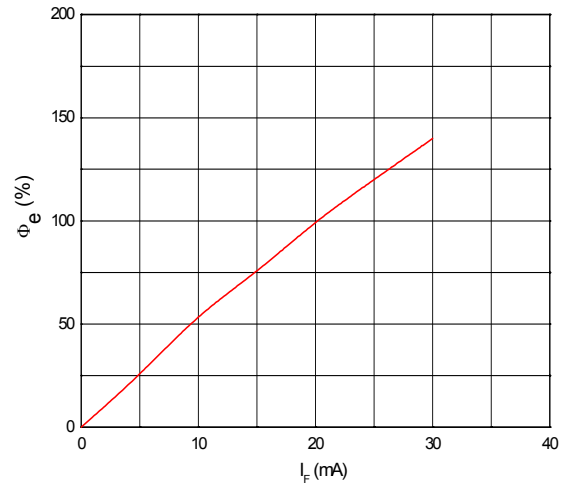
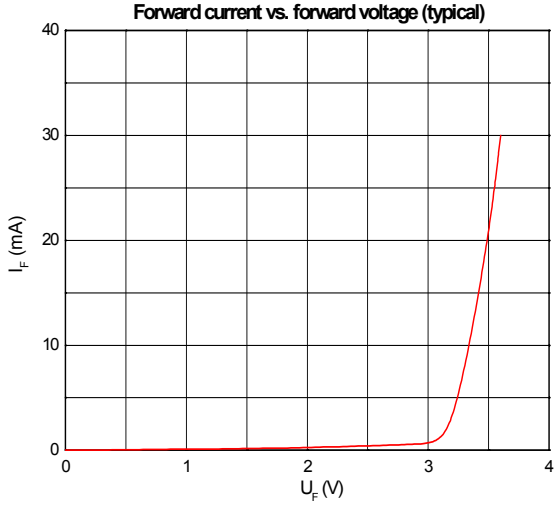
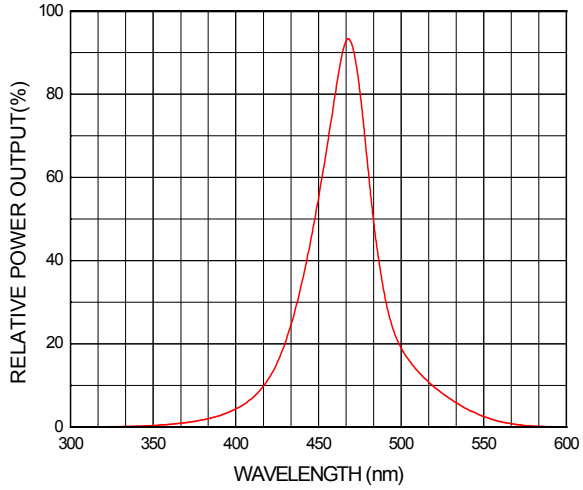
Radiant power Intensity (%)



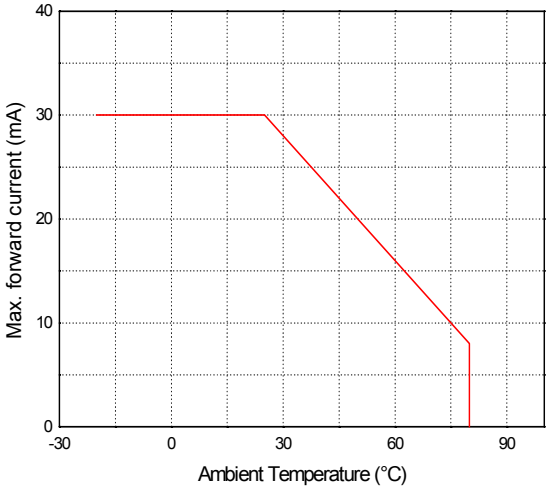
Forward current vs. forward voltage (typical)



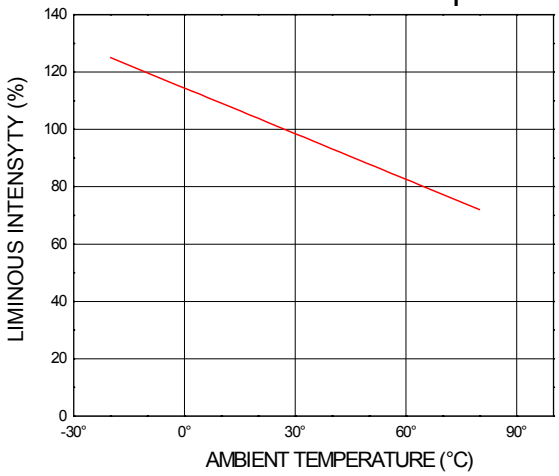
SPEKTRAL OUTPUT



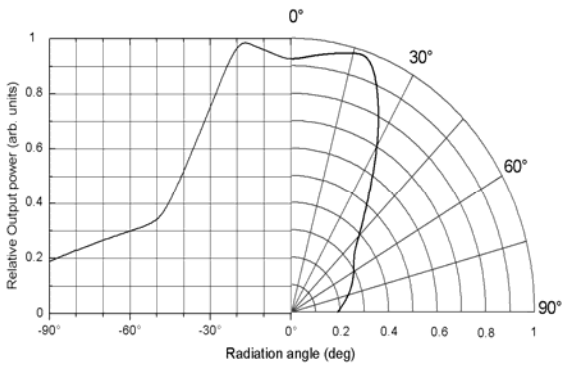
Ambient Temperature vs. maximal forward current



LIMINOUS INTENSITY vs TEMPERATUR at I_F = 10 mA



Typical radiant pattern



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