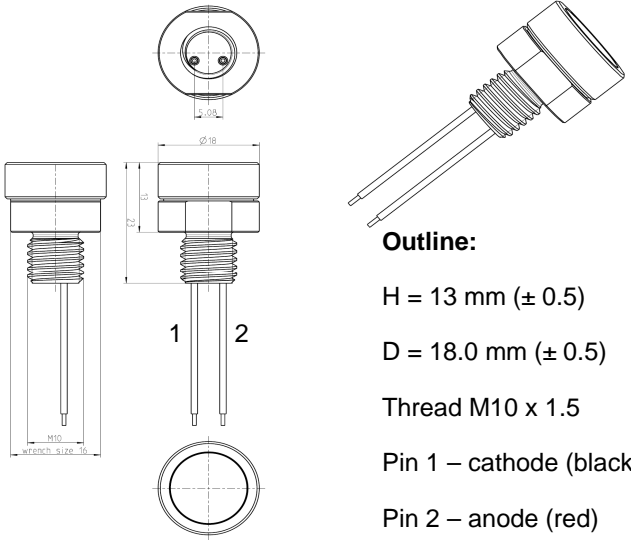


Radiation	Type	Case	Lens
blue	3.2 W	Aluminium	Plastic



Outline:

H = 13 mm (± 0.5)

D = 18.0 mm (± 0.5)

Thread M10 x 1.5

Pin 1 – cathode (black)

Pin 2 – anode (red)

Description

High-power blue LED in an aluminium case with thread socket, for easy handling and heat sink mounting. Applications demanding long lifetimes are perfectly addressed with this highly reliable LED. LED is protected by ESD device which is connected in parallel to LED-Chip. LED is well protected against rough ambient conditions therefore this LED is perfectly suited for outdoor use.

Applications

Industrial lighting, outdoor/indoor lighting, miniatur spot light, architectural lighting, shop lighting, stage lighting, horticultural lightning

Absolute Maximum Ratings

at T_{amb} = 25°C, on heat sink (S ≥ 200 cm²), unless otherwise specified

Parameter	Remarks	Symbol	Value	Unit
DC forward current	on heat sink	I _F	1.0	A
Power dissipation	on heat sink	P	3.7	W
Surge current	on heat sink t ≤ 10µs; DC = 0.005	I _{FM}	2.0	A
Reverse current	not designed for reverse operation	I _R	---	mA
Operating temperature range	on heat sink	T _{amb}	-25 to +85	°C
Storage temperature range		T _{stg}	-25 to +85	°C
Junction temperature		T _j	135	°C
International Protection		IP	66	

Electrical Characteristics

at T_{amb} = 25°C, on heat sink (S ≥ 200 cm²), t_{Measuring} < 1 s, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage ¹	I _F = 350 mA	V _F	2.7	3.1	3.5	V
Forward voltage ¹	I _F = 1000 mA	V _F		3.2		V
Reverse voltage	I _F = 350 mA	V _R	not designed for reverse operation			V
ESD withstand voltage		V _{ESD}			8	kV
Thermal resistance junction-case		R _{thJC}		10		K/W

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.

Optical Characteristics

at $T_{amb} = 25^{\circ}\text{C}$, on heat sink ($S \geq 200 \text{ cm}^2$), $t_{Measuring} < 1 \text{ s}$, unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Radiant power ^{1 2}	$I_F = 350 \text{ mA}$	Φ_e		350		mW
Radiant power ^{1 2}	$I_F = 1000 \text{ mA}$	Φ_e		800		mW
Luminous power ^{1 2}	$I_F = 350 \text{ mA}$	Φ_v		475		lm
Luminous power ^{1 2}	$I_F = 1000 \text{ mA}$	Φ_v		1075		lm
Luminous intensity ^{1 3}	$I_F = 350 \text{ mA}$	I_v	?	400		cd
Luminous intensity ^{1 3}	$I_F = 1000 \text{ mA}$	I_v	?	850		cd
Peak wavelength	$I_F = 350 \text{ mA}$	λ_p		450		nm
Viewing angle	$I_F = 350 \text{ mA}$	2φ		14		deg

¹ only recommended on optimal heat sink

² for information only

³ CIE 127:2700 Condition A (0.001 sr)

Note: All measurements carried out with JENOPTIK Polymer Systems equipment, on aluminium heat sink, $S = 200 \text{ cm}^2$, passive cooling. Measurement results and curve characteristics obtained with other heat sinks may differ.

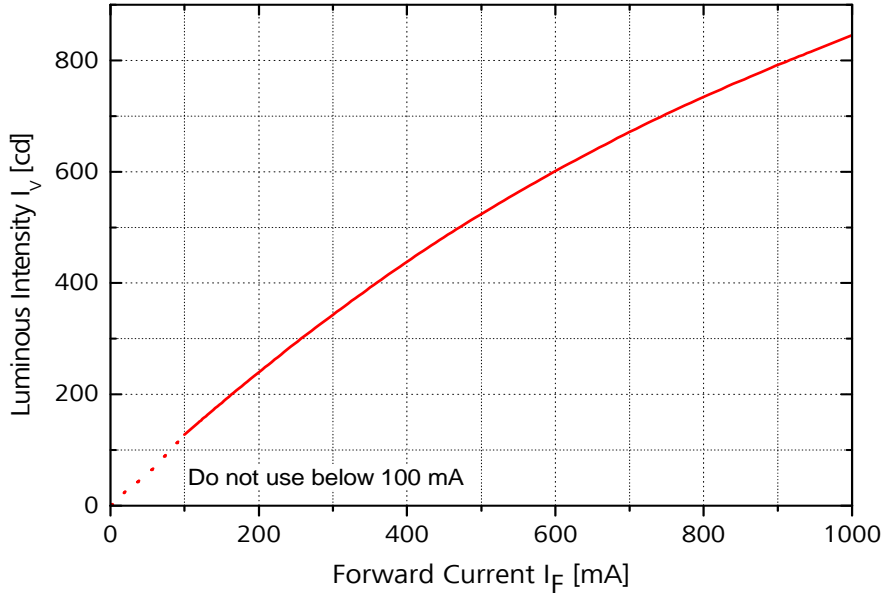
Safety Advise*

The evaluation of eye safety occurs according to the standard CIE/IEC 62471:2006 ("photobiological of lamps and lamp systems"). Within the risk grouping system of this CIE standard, the LED specified in this data sheet falls at maximum into the **Group 1- Low Risk**

At normal behaviour and use, this LED therefore does not pose a hazard.

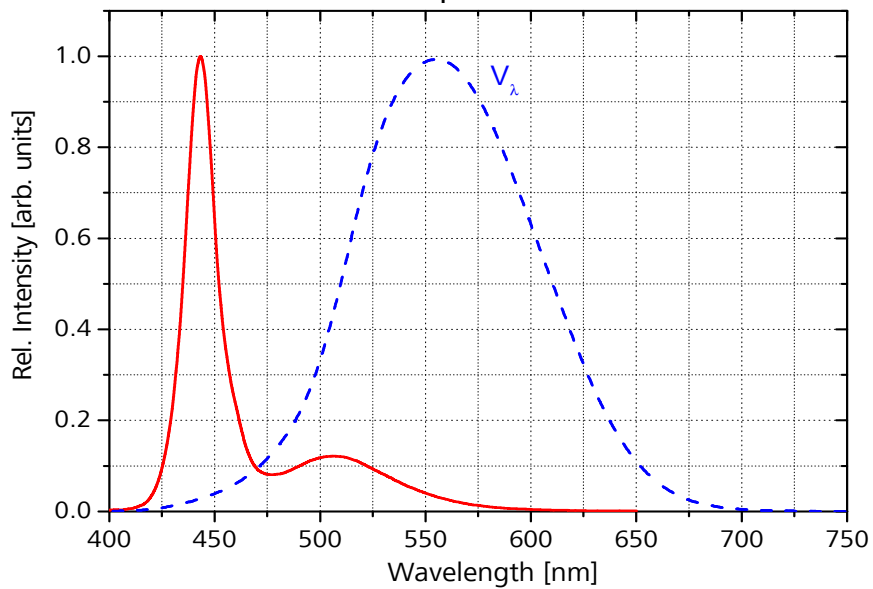
*Note: Safety classification of an optical component mainly depends on the intended application and the way the component is being used. Furthermore, all statements made to classification are based on calculations and are only valid for this LED "as it is", and at continuous operation, assuming direct view and maximum forward current. Using pulsed current or altering the light beam with additional optics may lead to different safety classifications. Therefore these remarks should be taken as recommendation and guideline only.

Luminous Intensity vs. Forward Current



Spectral Power Distribution (typical)

@ $I_F = 350$ mA



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