

Data sheet

Infrared LED

EOLD-1300-525

Radiation	Type	Case
Infrared	InGaAs/InP, MQW	5 mm plastic lens

Description:	
High-power, high-speed infrared LED in standard 5 mm package, housing without standoff leads For optical communications, safety equipment and automation All dimensions in mm	

Maximum Ratings

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

Parameter	Test Conditions	Symbol	Value	Unit
Forward current		I _F	100	mA
Peak forward current	t _p ≤ 50 μs, t _p / T = 1/2	I _{FM}	200	mA
Power dissipation		P _D	150	mW
Operating temperature range		T _{amb}	-20 to +80	°C
Storage temperature range		T _{stg}	-55 to +85	°C
Lead soldering temperature	t < 5 s, 3 mm from case	T _{slg}	260	°C

Optical and Electrical Characteristics

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

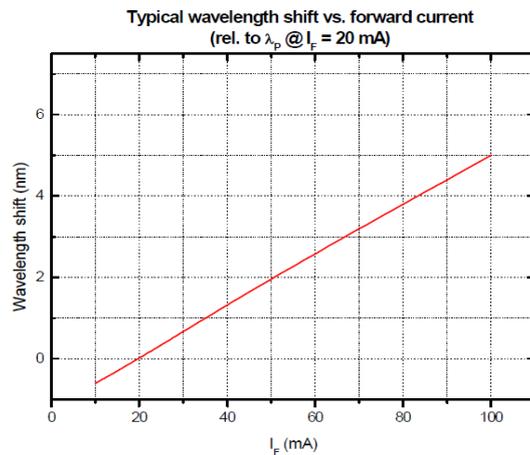
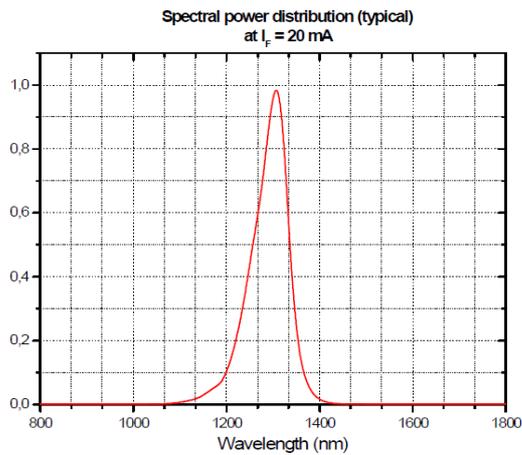
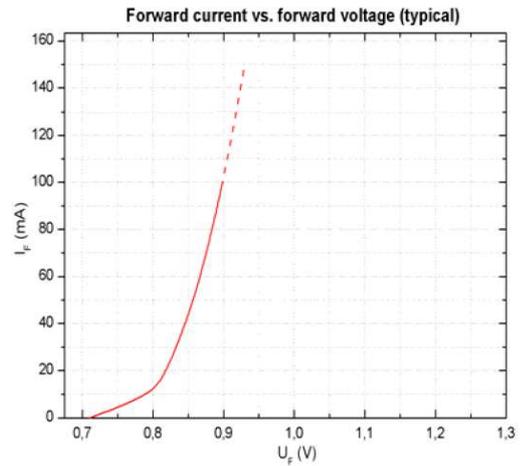
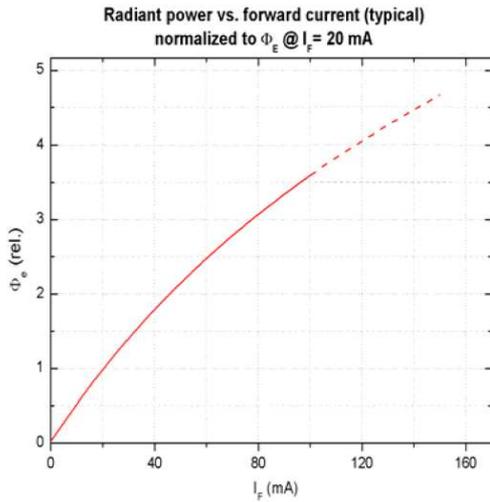
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V _F	I _F = 20 mA		0.85	1	V
Forward voltage	V _F	I _F = 100 mA		0.95		V
Reverse voltage	V _R	I _R = 10 μA	5			V
Radiant power	Φ _e	I _F = 20 mA	1.6	2.2		mW
Radiant power	Φ _e	I _F = 100 mA		8.5		mW
Radiant intensity	I _e	I _F = 20 mA		10		mW/sr
Radiant intensity	I _e	I _F = 100 mA		38		mW/sr
Peak wavelength	λ _p	I _F = 20 mA	1250	1300	1350	nm
FWHM	Δλ _{0,5}	I _F = 20 mA		70		nm
Viewing angle	φ	I _F = 20 mA		25		deg.
Switching time	t _r , t _f	I _F = 20 mA		10		ns



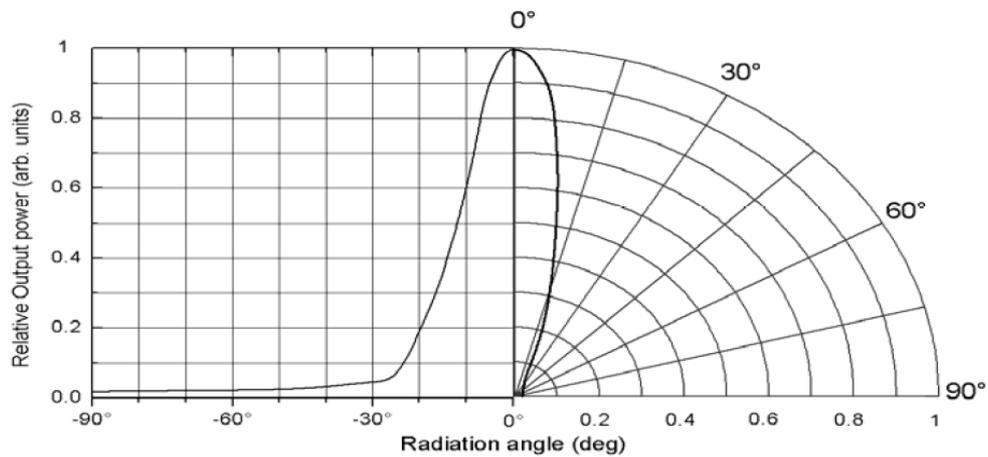
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Typical radiant pattern



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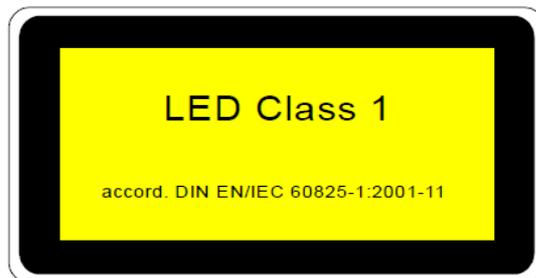
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Remarks concerning optical radiation safety*

Up to Maximum Forward current, at continuous operation, this LED may be classified as LED product Class 1, according to standard IEC 60825-1:A2. Class 1 products are safe to eyes and skin under reasonably predictable conditions. This implicates a direct observation of the light beam by means of optical instruments.

*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. 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.



Art. No. 430 003



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.