



Product Data Sheet

LED Lamp Infra Red

EOLD-1300-525

Radiation	Type	Case
Infra Red	MQW	5mm plastic lens

	<p>Description:</p> <p>High-power, high-speed infrared LED in standard 5mm package, housing without standoff leads</p> <p>for optical communications, safety equipment and automation</p>
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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 temp. range		T _{amb}	-20 to +80	°C
Storage temp. range		T _{stg}	-55 to +100	°C
Lead soldering temp.	t < 5s, 3mm from case	T _{slg}	260	°C

Optical and Electrical Characteristics

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

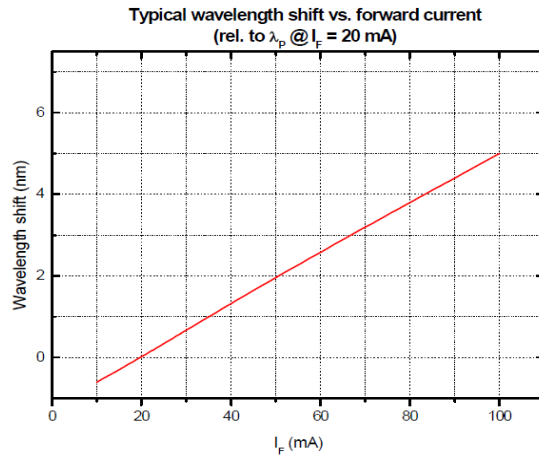
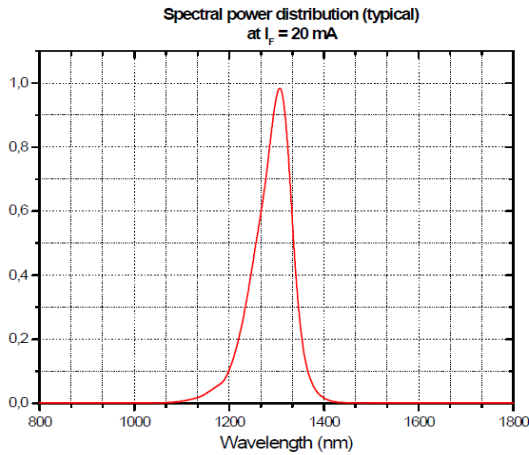
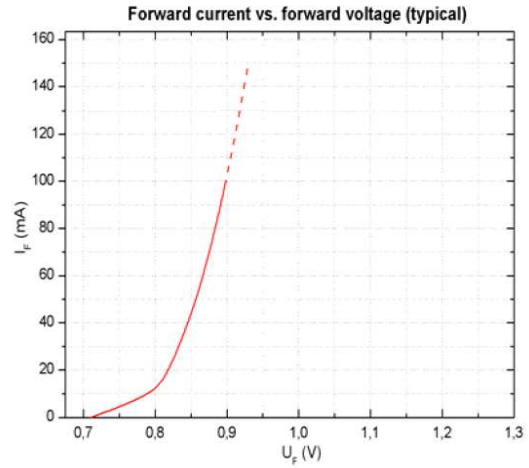
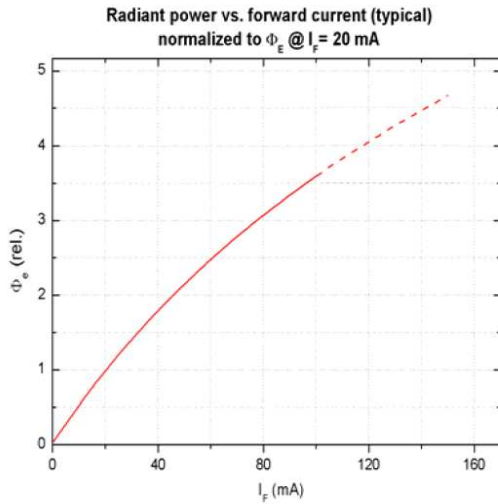
Parameter	Symbol	Conditions	Min	typ	max	Unit
Forward voltage	V _F	I _F = 20mA		0.85	1.0	V
Forward voltage	V _F	I _F = 100mA		0.95		V
Reverse voltage	V _R	I _R = 10μA	5			V
Radiant Power	Φ _e	I _F = 20mA	1.6	2.2		mW
Radiant Power	Φ _e	I _F = 100mA		8.5		mW
Radiant intensity	I _e	I _F = 20mA		10		mW/sr
Radiant intensity	I _e	I _F = 100mA		38		mW/sr
Peak wavelength	λ _p	I _F = 20mA	1250	1300	1350	nm
Spectral bandwidth at 50%	Δλ _{0,5}	I _F = 20mA		70		nm
Viewing angle	φ	I _F = 20mA		25		deg.
Switching time	t _r , t _f	I _F = 20mA		10		ns



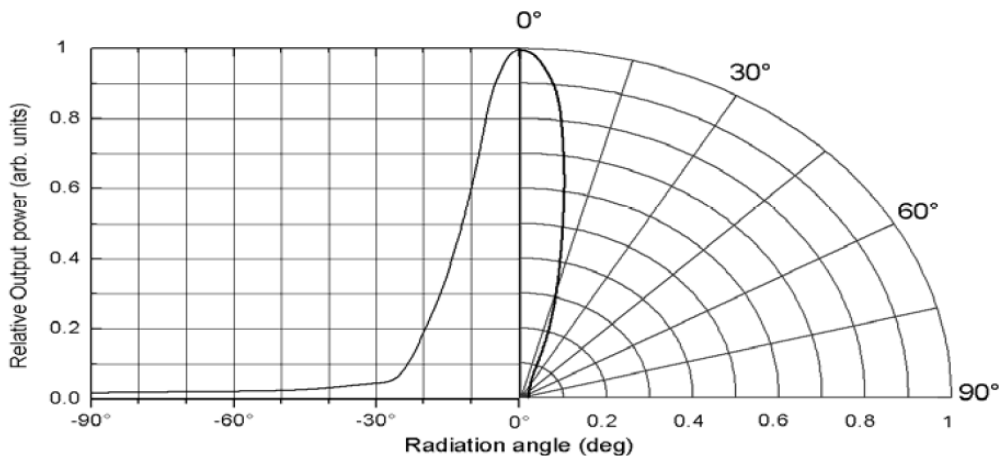
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Typical radiant pattern



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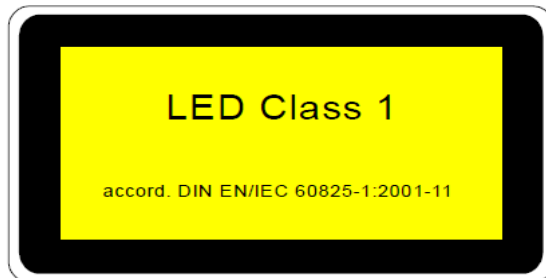
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Rev. 01 aus 2011

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.



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.