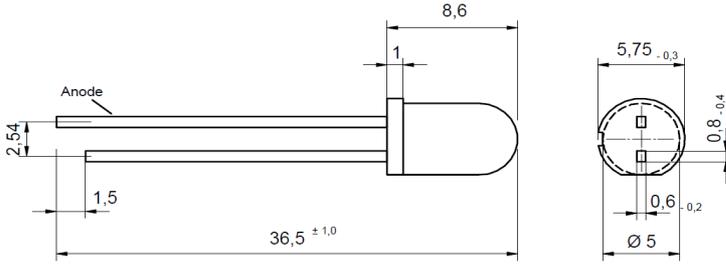


Product Data Sheet

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, housin without standoff leads</p> <p>for optical communications, safety equipment and automation</p>
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Maximum Ratings

$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

Parameter	Test Conditions	Symbol	Value	Unit
Forward Current		I_F	100	mA
Peak forward current	$(t_p \leq 50 \mu\text{s}, t_p / T = 1/2)$	I_{FM}	200	mA
Power dissipation		P_D	150	mW
Operating temp. range		T_{amb}	-20 to +80	$^{\circ}\text{C}$
Storage temp. range		T_{stg}	-55 to +100	$^{\circ}\text{C}$
Lead soldering temp.	$t < 5\text{s}$, 3mm from case	T_{slg}	260	$^{\circ}\text{C}$

Optical and Electrical Characteristics

$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	Min	typ	max	Unit
Forward voltage	V_F	$I_F = 20\text{mA}$		0.85	1.0	V
Forward voltage	V_F	$I_F = 100\text{mA}$		0.95		V
Reverse voltage	V_R	$I_R = 10\mu\text{A}$	5			V
Radiant Power	Φ_e	$I_F = 20\text{mA}$	1.6	2.2		mW
Radiant Power	Φ_e	$I_F = 100\text{mA}$		8.5		mW
Radiant intensity	I_e	$I_F = 20\text{mA}$		10		mW/sr
Radiant intensity	I_e	$I_F = 100\text{mA}$		38		mW/sr
Peak wavelength	λ_p	$I_F = 20\text{mA}$	1250	1300	1350	nm
Spectral bandwidth at 50%	$\Delta\lambda_{0,5}$	$I_F = 20\text{mA}$		70		nm
Viewing angle	φ	$I_F = 20\text{mA}$		25		deg.
Switching time	t_r, t_f	$I_F = 20\text{mA}$		10		ns

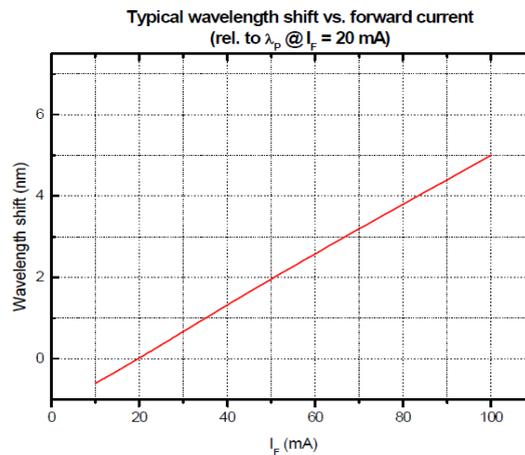
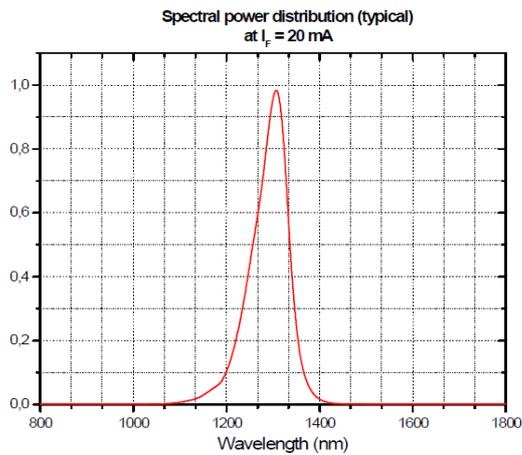
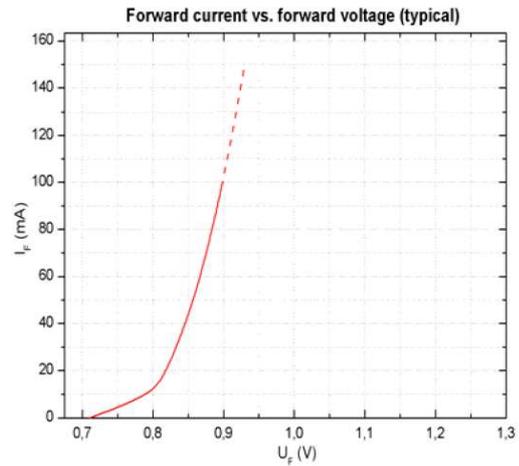
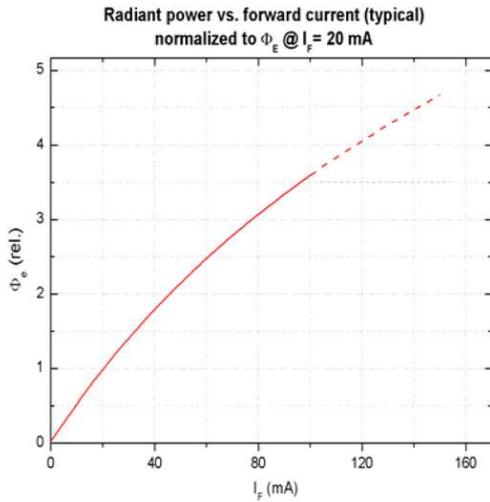




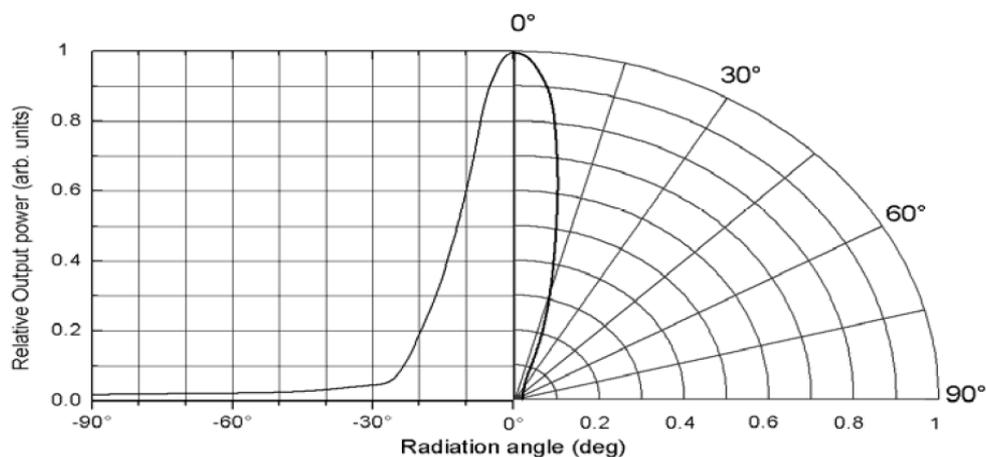
Product Data Sheet

LED Lamp Infra Red

EOLD-1300-525



Typical radiant pattern



Product Data Sheet

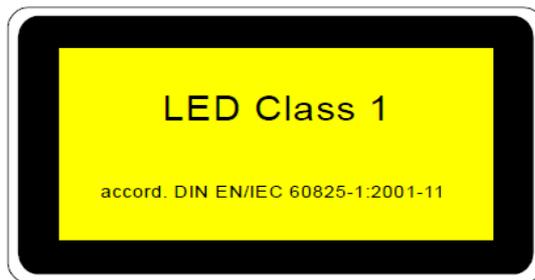
LED Lamp Infra Red

EOLD-1300-525

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.