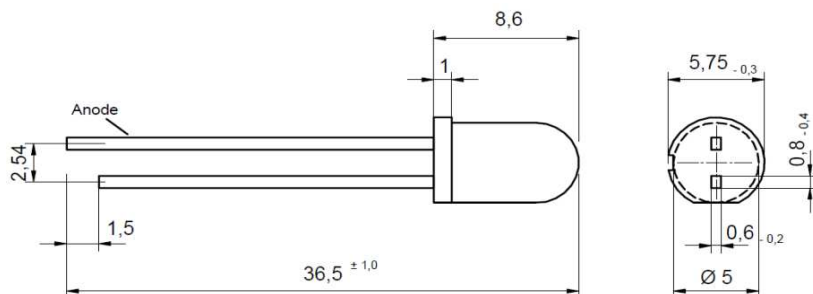


## Peak Emission Wavelength: 1300nm



### Description

- Standard 5mm plastic lens package housed without standoff leads
- Type: MQW
- High power
- High speed infrared

### Application

- Optical communication
- Safety equipment
- Automation

## Absolute Maximum Ratings (Ta=25°C)

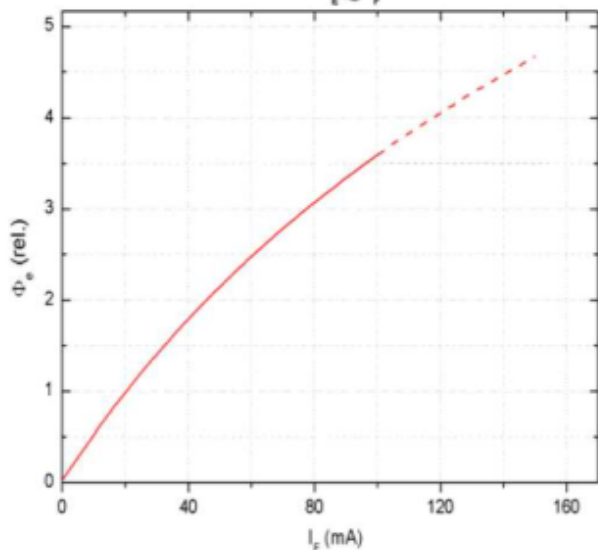


ITEMS	TEST CONDITIONS	SYMBOL	RATINGS	UNIT
Forward DC Current		If	100	mA
Peak Forward Current	(tp ≤ 50us, tp/T=1/2)	Ifp	200	mA
Power Dissipation		Pd	150	mW
Operating Temperature Range		Top	-20 to +80	°C
Storage Temperature Range		Tstg	-55 to +100	°C
Lead Soldering Temperature	t<5s, 3mm from case	Tslg	260	°C

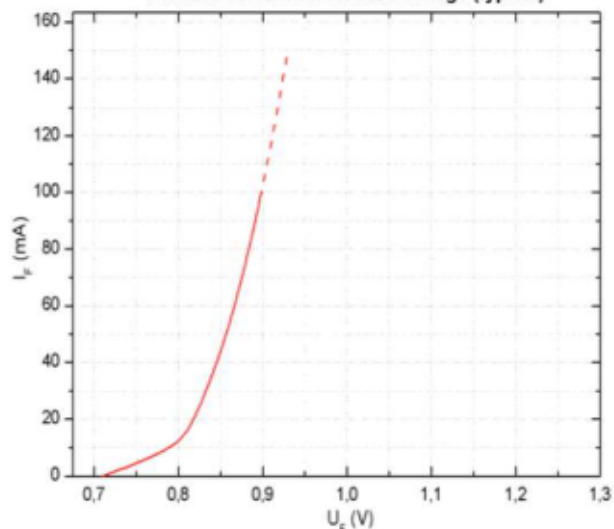
## Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	Vf	If=20mA	--	0.85	1	V
Forward Voltage	Vf	If=100mA	--	0.95	--	V
Reverse Voltage	Vr	Ir=10uA	5	--	--	V
Radiant Power	Φe	If=20mA	3.2	4.4	--	mW
Radiant Power	Φe	If=100mA	--	17	--	mW
Radiant Intensity	Ie	If=20mA	--	20	--	mW/sr
Radiant Intensity	Ie	If=100mA	--	76	--	mW/sr
Peak Wavelength	λp	If=20mA	1250	1300	1350	nm
Spectral Bandwidth at 50%	Δλ0.5	If=20mA	--	70	--	nm
Viewing Angle	φ	If=20mA	--	20	--	deg
Switching Time	tr, tf	If=20mA	--	10	--	ns

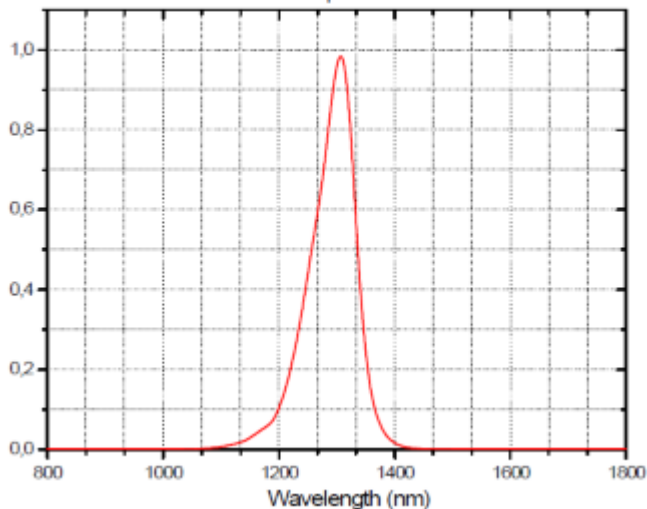
**Radiant power vs. forward current (typical)**  
normalized to  $\Phi_e$  @  $I_F = 20$  mA



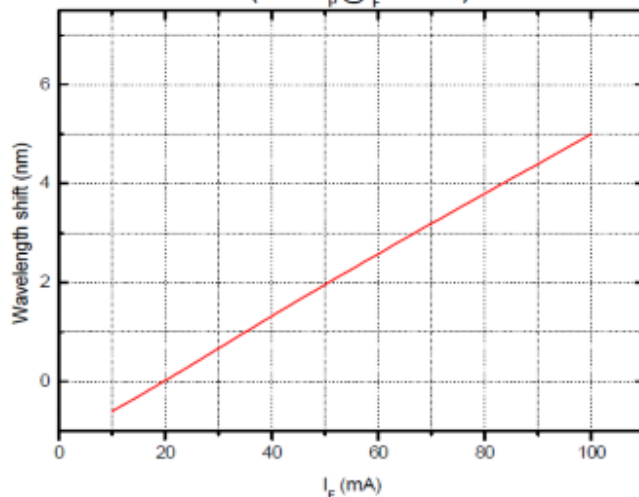
**Forward current vs. forward voltage (typical)**

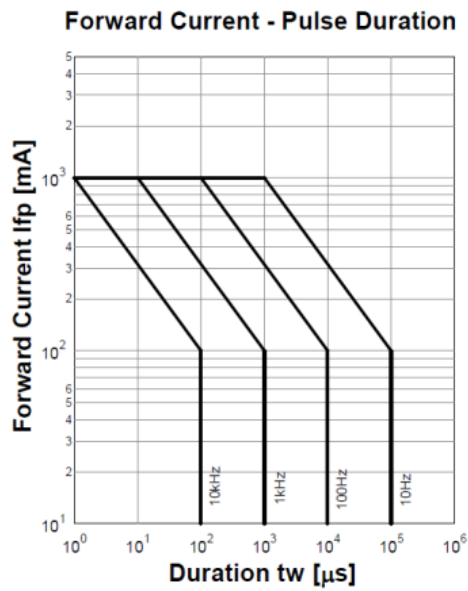


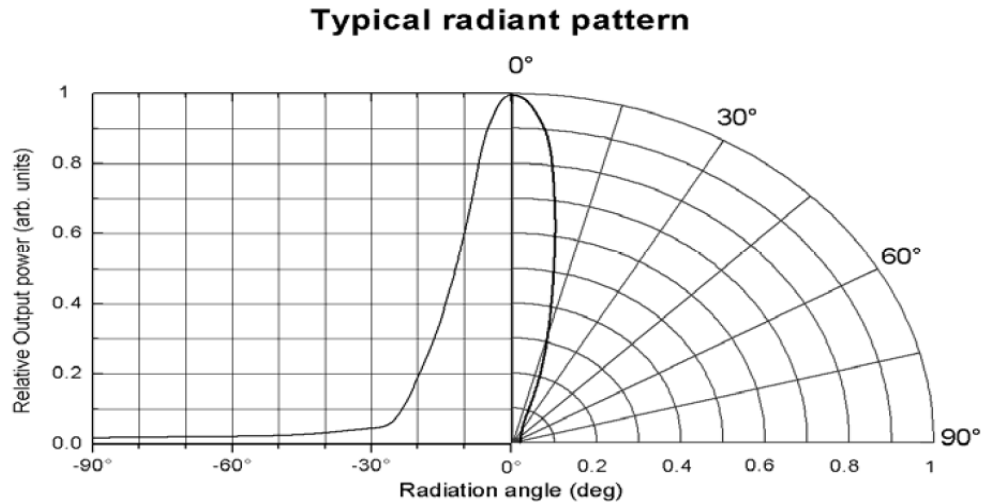
**Spectral power distribution (typical)**  
at  $I_F = 20$  mA



**Typical wavelength shift vs. forward current**  
(rel. to  $\lambda_p$  @  $I_F = 20$  mA)







**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.

