

Radiation	Type	Technology	Case
Red	SMD	AlGaAs	SMD 0805

<p>Back side</p> <p>Cathode Marking</p> <p>Unit: mm Tolerance: 0,1mm</p> <p>Recommended soldering pattern</p>	<p><b>Description</b></p> <p>High-power, high speed LED in standard SMD package, compact design allows for easy circuit board mounting and assembling of arrays</p> <p><b>Applications</b></p> <p>Illumination, indicators, measurement applications and security systems, automation</p>
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### Absolute Maximum Ratings

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

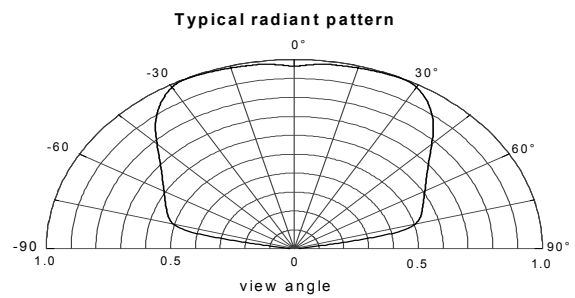
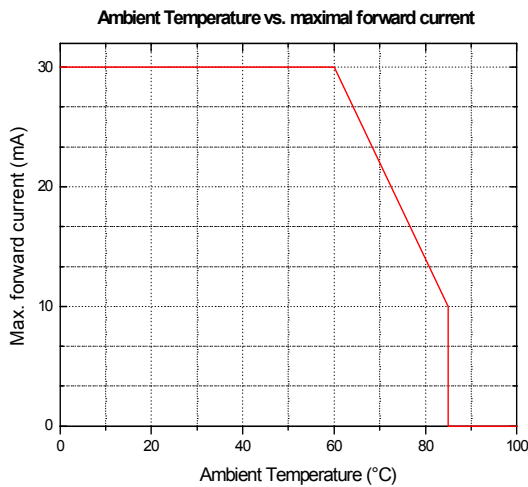
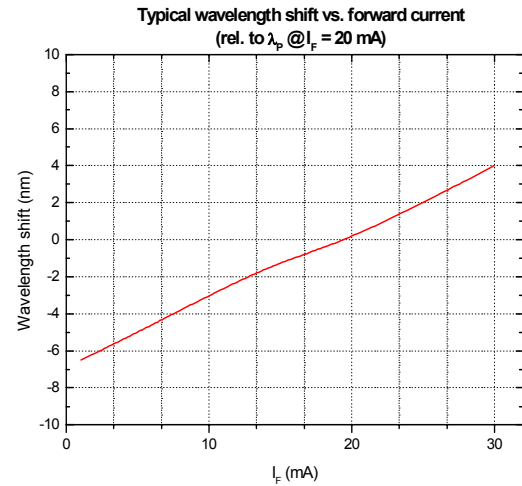
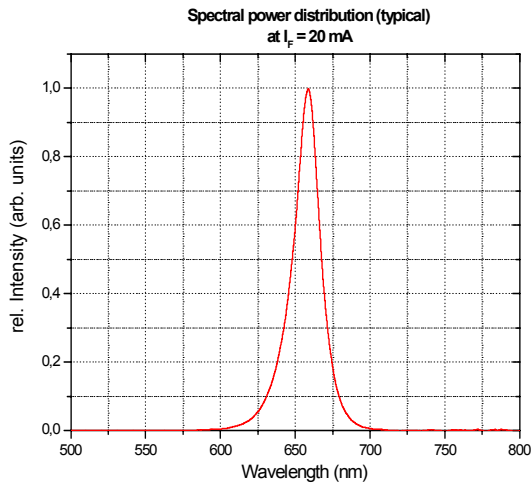
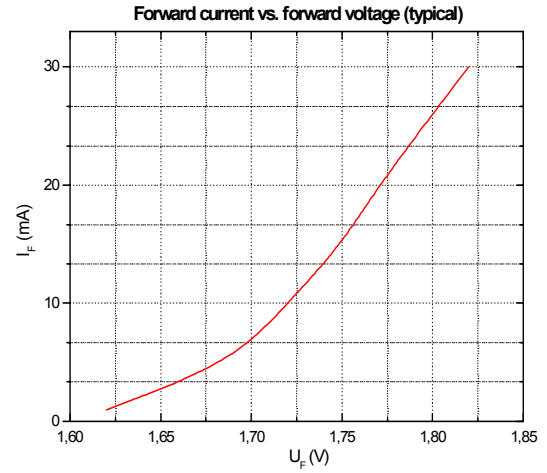
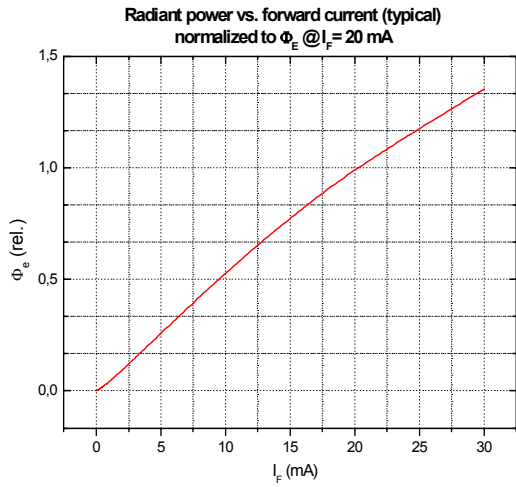
Parameter	Test conditions	Symbol	Value	Unit
DC forward current		$I_F$	30	mA
Peak forward current	$t_p \leq 100 \mu\text{s}$ , $t_p/T \leq 0.1$	$I_{FM}$	100	mA
Operating temperature range		$T_{amb}$	-40 to +85	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	-55 to +85	$^{\circ}\text{C}$

### Electrical and Optical Characteristics

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

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 20 \text{ mA}$	$V_F$		1.8	2.5	V
Reverse voltage	$I_F = 100 \mu\text{A}$	$V_R$	5V			V
Radiant power	$I_F = 20 \text{ mA}$	$\Phi_e$	1	1.5		mW
Luminous Intensity	$I_F = 20 \text{ mA}$	$I_V$	15	35		mcd
Peak wavelength	$I_F = 20 \text{ mA}$	$\lambda_p$	645	655	665	nm
Spectral bandwidth at 50%	$I_F = 20 \text{ mA}$	$\Delta\lambda_{0.5}$		20		nm
Viewing angle	$I_F = 20 \text{ mA}$	$\varphi$		150		deg.
Switching time	$I_F = 20 \text{ mA}$	$t_r, t_f$		60/60		ns

Note: All measurements carried out with *EPIGAP* equipment



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.

**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.

