

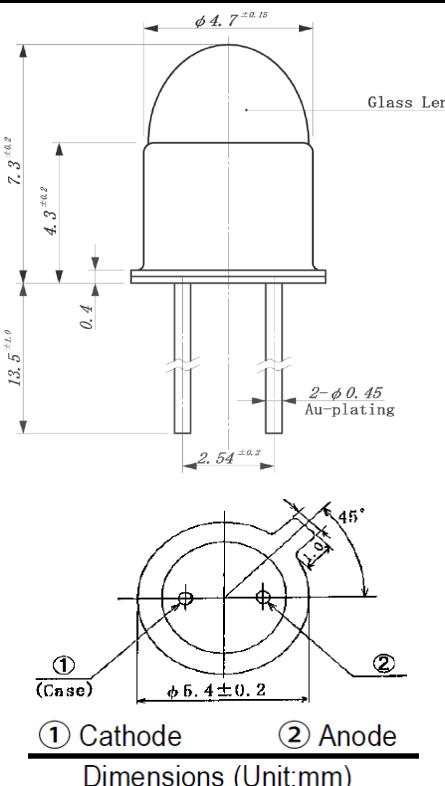
**Data sheet**

page 1 of 2

**Infrared LED**
**EOLD-1650-015**

Rev. 02, 2017

Radiation	Type	Case
Infrared	InGaAs/InP, MQW	TO-46 with glass lens cap

 Dimensions (Unit:mm)	<b>Description:</b> High-power, high speed, narrow beam angle, high reliability
	<b>Application:</b> Optical switches, optical communication, safety equipment, automation

**Maximum Ratings**
 $T_{amb}$ = 25°C, unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Forward current		I <sub>F</sub>	100	mA
Peak forward current (pulse)	t ≤ 50 µs, T = 100 µs	I <sub>FM</sub>	200	mA
Reverse voltage	I <sub>R</sub> =10 µA	I <sub>FM</sub>	5	V
Power dissipation		P <sub>D</sub>	100	mW
Operating temperature range		T <sub>amb</sub>	-20 to +85	°C
Storage temperature range		T <sub>stg</sub>	-30 to +100	°C
Lead soldering temperature	t < 5 s, 3 mm from case	T <sub>sld</sub>	260	°C
Junction temperature		T <sub>J</sub>	100	°C



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.

**Data sheet**

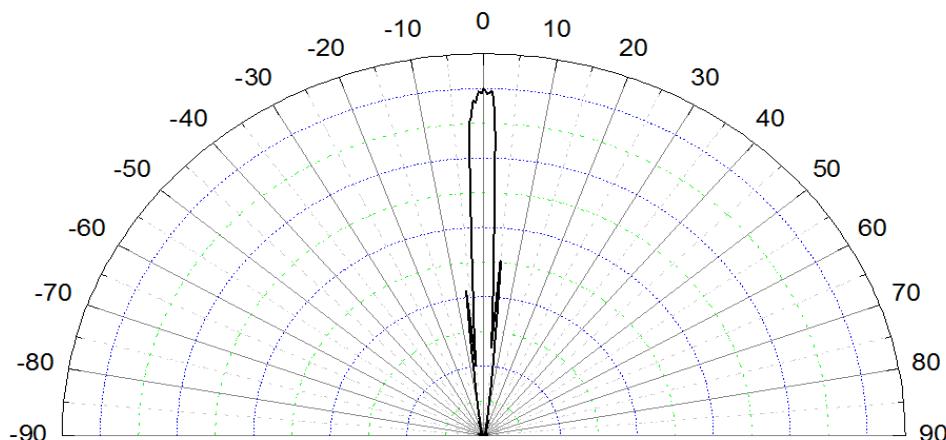
page 2 of 2

**Infrared LED****EOLD-1650-015**

Rev. 02, 2017

**Optical and Electrical Characteristics**
 $T_{amb} = 25^\circ\text{C}$ , unless otherwise specified

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	$I_F=20 \text{ mA}$	$V_F$		0.7	0.95	V
Forward voltage	$I_F=100 \text{ mA}$	$V_F$		0.8	1	V
Reverse voltage	$I_R=10 \mu\text{A}$	$V_R$	5			V
Radiant power	$I_F=20 \text{ mA}$	$\Phi_e$		1		mW
Radiant power	$I_F=100 \text{ mA}$	$\Phi_e$		4		mW
Peak wavelength	$I_F=20 \text{ mA}$	$\lambda_p$	1610	1650	1690	nm
FWHM	$I_F=20 \text{ mA}$	$\Delta\lambda_{0.5}$		100		nm
Viewing angle	$I_F=20 \text{ mA}$	$\varphi$		6		deg.
Switching times	$I_F=20 \text{ mA}$	$t_r, t_f$		15		ns



Typical radiation pattern

Art. No. 430 073



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.