EPIGAP Optronic GmbH
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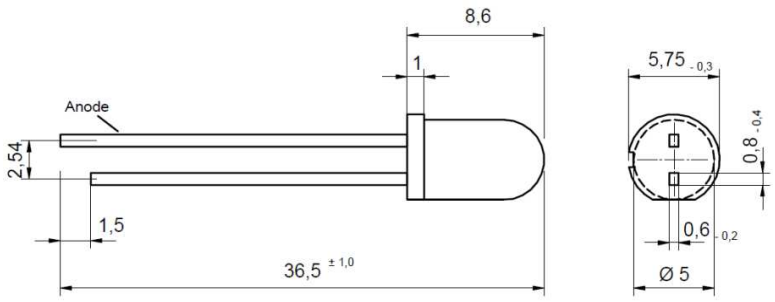
Data sheet

Infrared LED EOLD-1070-535

Rev. 02, 2017

Radiation	Type	Case
Infrared	InGaAs, MQW	5 mm plastic lens



Description:

High-power, high-speed infrared LED in standard 5 mm package, housing without standoff leads

For optical communications, safety equipment and automation

All dimensions in mm

Maximum Ratings

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

Parameter	Test Conditions	Symbol	Value	Unit
Forward current		I_F	100	mA
Peak forward current	$t_p \leq 50$ µs, $t_p /T = ½$	I_{FM}	200	mA
Power dissipation		P_D	150	mW
Operating temperature range		T_{amb}	-20 to +80	°C
Storage temperature range		T_{stg}	-55 to +85	°C
Lead soldering temperature	t< 5 s, 3 mm 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= 20 mA		1.25		V
Forward voltage	V_F	I_F= 100 mA		1.35		V
Reverse voltage	V_R	I_R= 10 µA	5			V
Radiant power	Φ_e	I_F= 20 mA		10		mW
Radiant power	Φ_e	I_F= 100 mA		45		mW
Radiant intensity	I_e	I_F= 20 mA		25		mW/sr
Radiant intensity	I_e	I_F= 100 mA		110		mW/sr
Peak wavelength	λ_p	I_F= 20 mA		1070		nm
FWHM	$\Delta\lambda_{0,5}$	I_F= 20 mA		38		nm
Viewing angle	φ	I_F= 20 mA		35		deg.
Switching time	t_r, t_f	I_F= 20 mA		20		ns

RoHS COMPLIANT Pb Pb-Free

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.

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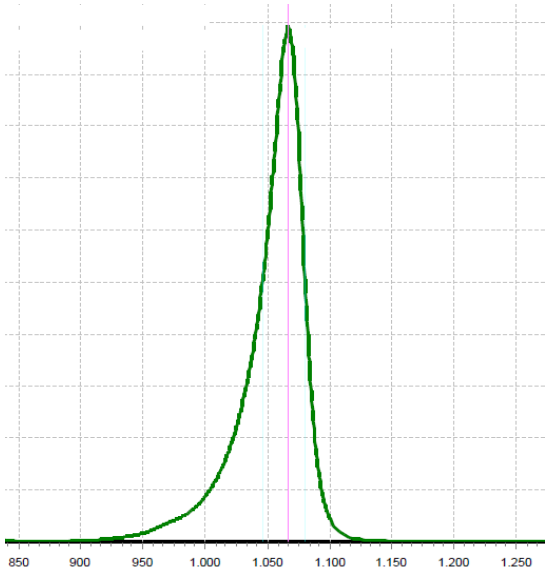
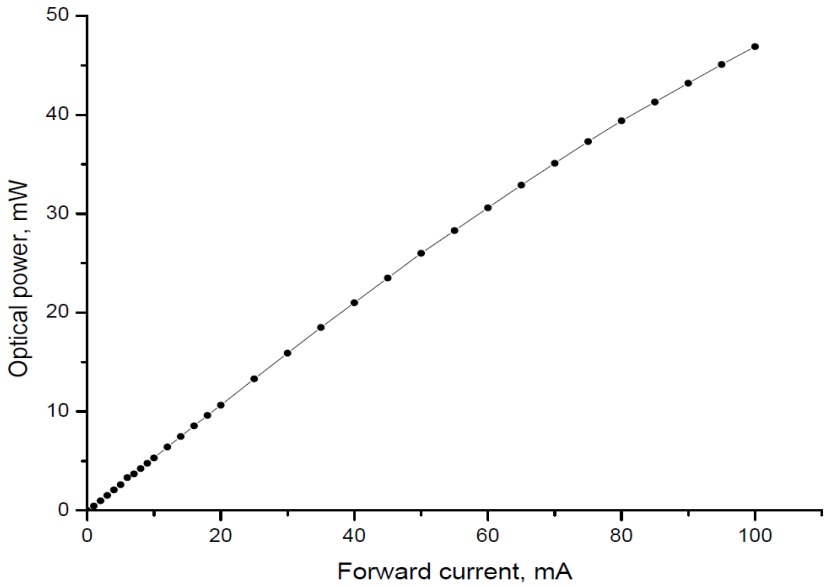


Typical spectrum at 20 mA



Power vs. current

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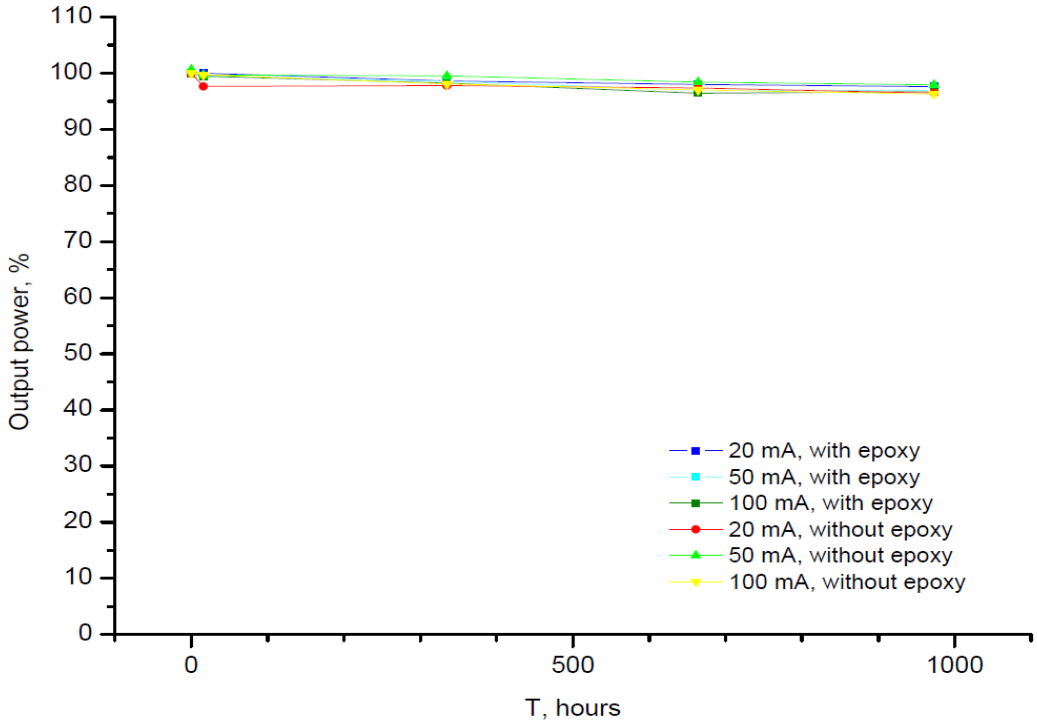
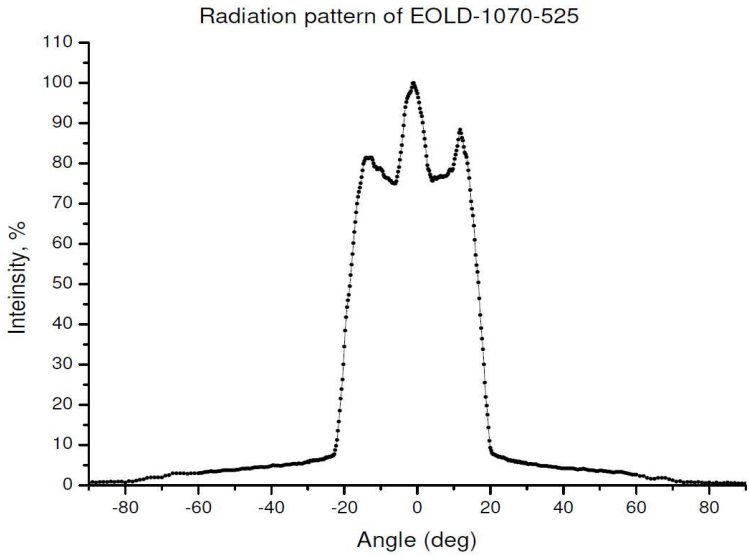


Life time test on TO-18 headers at T_{amb}= 25°C



Art. No. 430 081

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