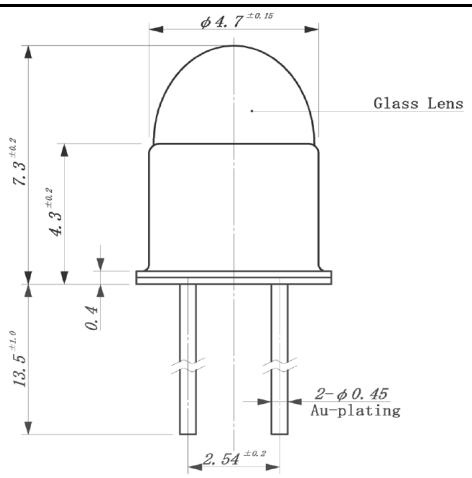
EPIGAP Optronic GmbH
Koepenicker Str. 325b
D-12555 Berlin
Fon: +49 (0)30 657637 60
Fax: +49 (0)30 657637 70
sales@epigap-optronic.de

Data sheet

Infrared LED — EOLD-940-015

Rev. 02, 2017

Radiation	Type	Case
Infrared	AlGaAs/GaAs, DH	TO-46 with glass lens cap



Dimensions (Unit:mm)

Description:

High-power, narrow beam angle, high reliability

Application:

Optical switches, safety equipment, automation

Maximum Ratings

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

Parameter	Test conditions	Symbol	Value	Unit
Forward current		I_F	100	mA
Peak forward current (pulse)	t=10 µs, t=10 ms	I_{FM}	1	A
Reverse voltage	I_R=10 µA	I_{FM}	5	V
Power dissipation		P_D	140	mW
Operating temperature range		T_{amb}	-20 to +85	°C
Storage temperature range		T_{stg}	-30 to +100	°C
Lead soldering temperature	t< 5 s, 3 mm from case	T_{slg}	260	°C
Junction temperature		T_J	100	°C

RoHS COMPLIANT Pb Pb-Free

EPIGAP Optronic GmbH
Koepenicker Str. 325b
D-12555 Berlin
Fon: +49 (0)30 657637 60
Fax: +49 (0)30 657637 70
sales@epigap-optronic.de

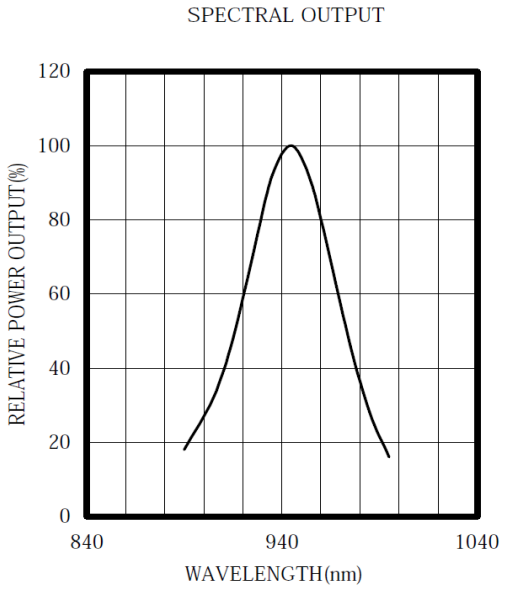
Data sheet

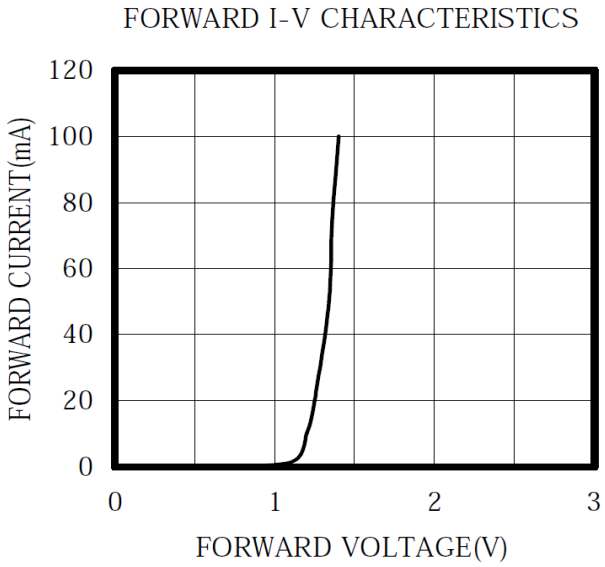
Infrared LED **EOLD-940-015** Rev. 02, 2017

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		1.2	1.4	V
Forward voltage	V_F	I_F= 100 mA		1.3		V
Reverse voltage	V_R	I_R= 100 µA	5			V
Radiant power	Φ_e	I_F= 20 mA	3	5		mW
Radiant power	Φ_e	I_F= 100 mA		20		mW
Peak wavelength	λ_p	I_F= 20 mA	930	940	950	nm
FWHM	$\Delta\lambda_{0,5}$	I_F= 20 mA		66		nm
Viewing angle	φ	I_F= 20 mA		6		deg.
Switching time	t_r, t_f	I_F= 20 mA		500		ns



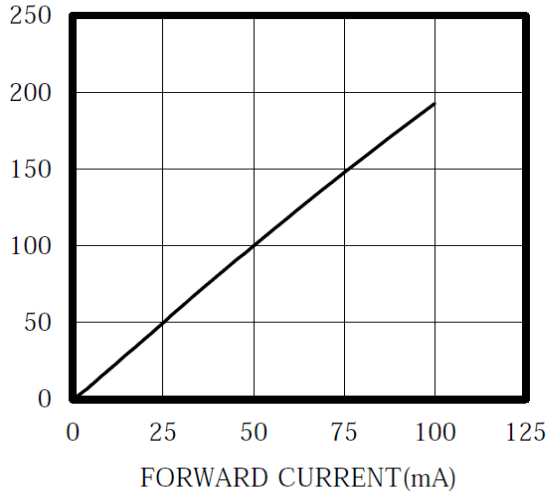


EPIGAP Optronic GmbH
Koepenicker Str. 325b
D-12555 Berlin
Fon: +49 (0)30 657637 60
Fax: +49 (0)30 657637 70
sales@epigap-optronic.de

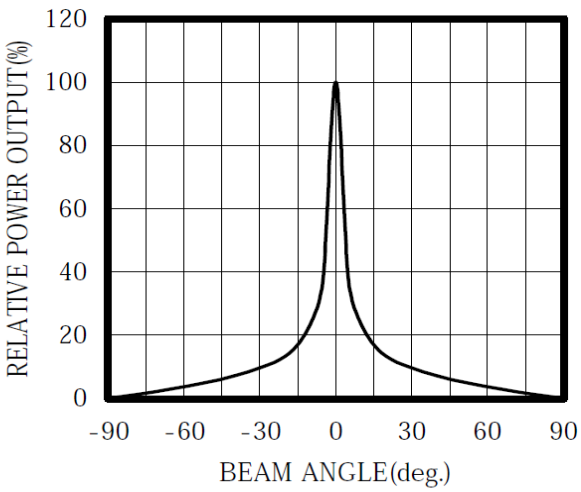
Data sheet

Infrared LED **EOLD-940-015** Rev. 02, 2017

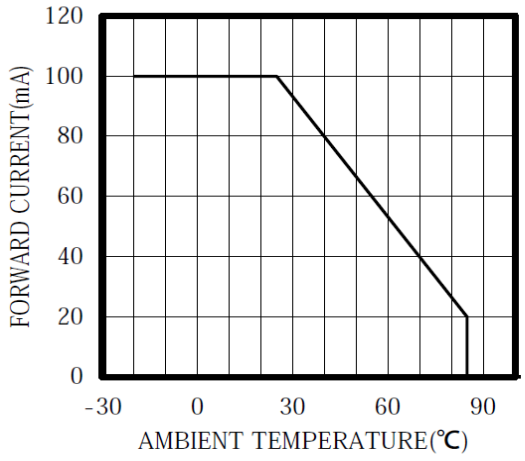
RELATIVE POWER vs FORWARD CURRENT



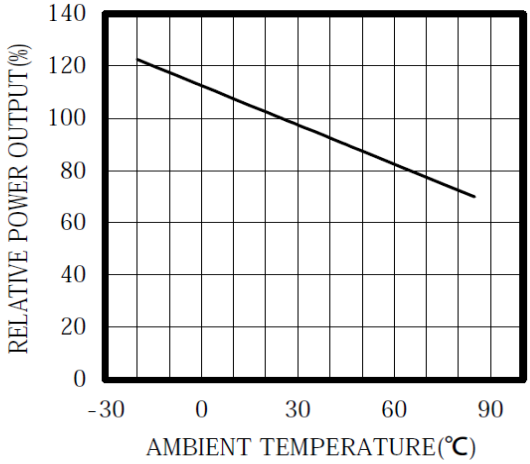
RADIATION PATTERN



THERMAL DERATING CURVE

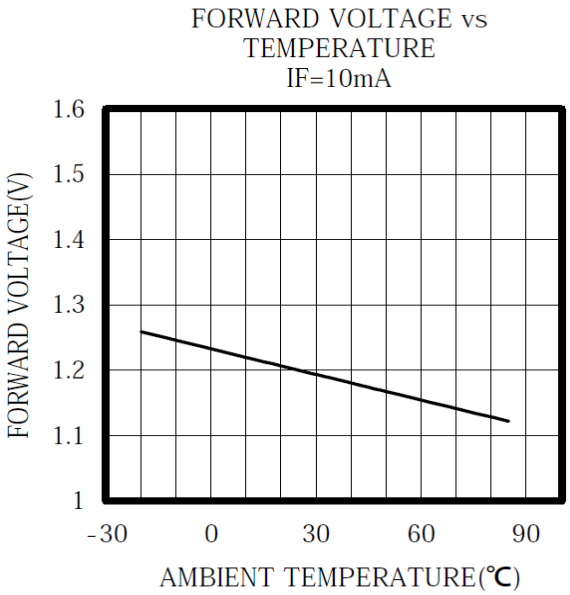


POWER OUTPUT vs TEMPERATURE
IF=10mA



EPIGAP Optronic GmbH
Koepenicker Str. 325b
D-12555 Berlin
Fon: +49 (0)30 657637 60
Fax: +49 (0)30 657637 70
sales@epigap-optronic.de

Data sheet



Art. No. 430 055