

EPIGAP Optronik 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

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Infrared LED

EOLD-940-015

Rev. 02, 2017

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

	Description:
<p style="text-align: center;">① Cathode ② Anode Dimensions (Unit:mm)</p>	Application:
	<p>High-power, narrow beam angle, high reliability</p> <p>Optical switches, safety equipment, automation</p>

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



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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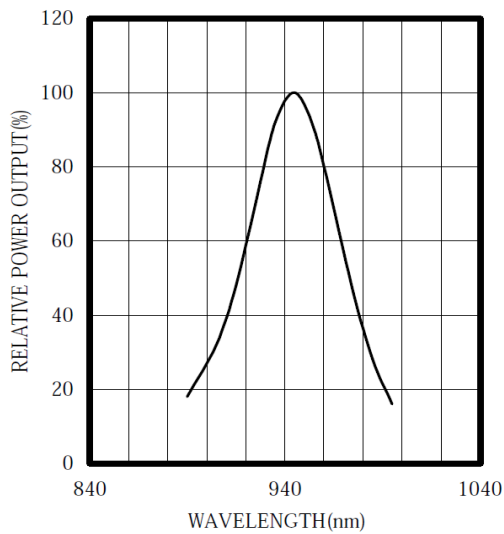
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Optical and Electrical Characteristics

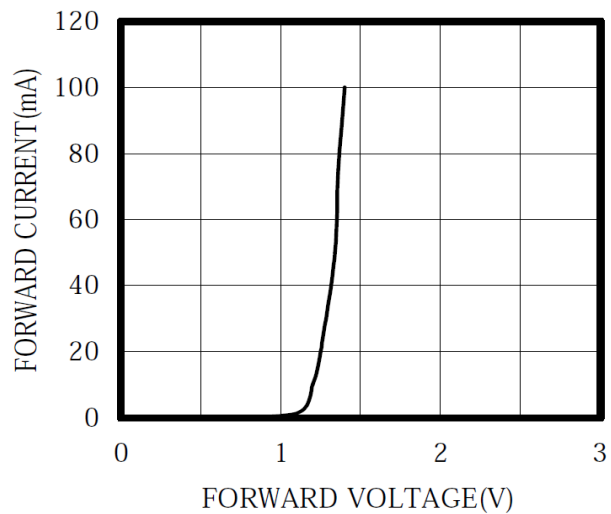
$T_{amb} = 25^{\circ}\text{C}$, unless otherwise specified

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

SPECTRAL OUTPUT



FORWARD I-V CHARACTERISTICS



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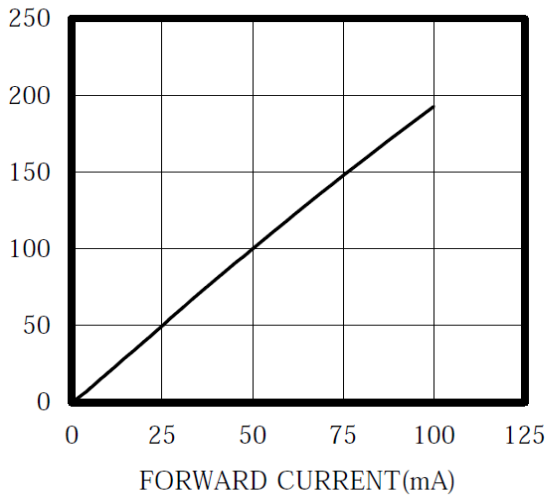
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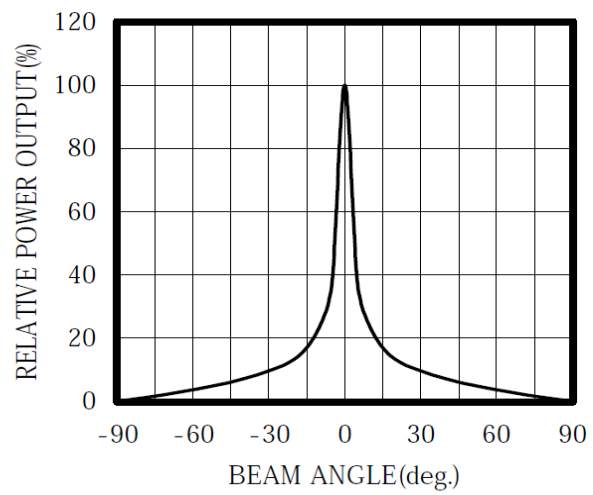
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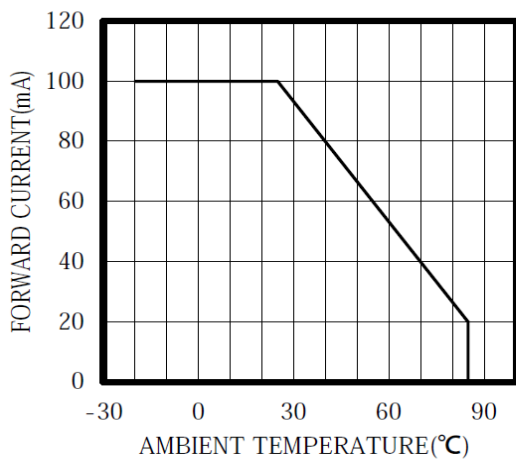
RELATIVE POWER vs FORWARD CURRENT



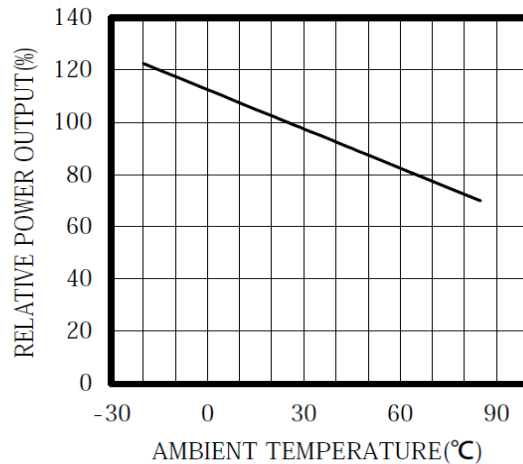
RADIATION PATTERN



THERMAL DERATING CURVE



POWER OUTPUT vs TEMPERATURE
IF=10mA



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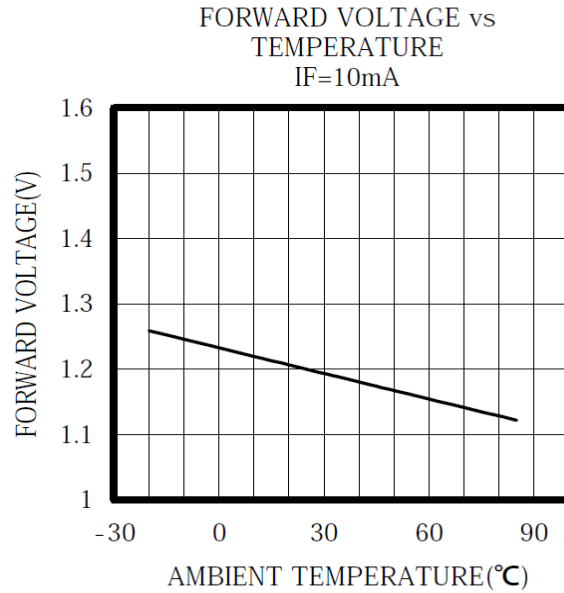


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