

# EPIGAP Optronik GmbH

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customized optoelectronics



## Product Data Sheet

### LED Lamp Infra Red

### EOLD-850-525

Rev. 01 aus 2011

Radiation	Type	Case
Infra Red	DDH	5mm plastic lens

Description:	
	<p>High-power, high-speed infrared LED in standard 5 mm package , with lens for narrow beam focusing, housing with standoff leads</p>

### Maximum Ratings

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

Parameter	Test Conditions	Symbol	Value	Unit
Forward Current		$I_F$	150	mA
Peak forward current	$(t_p \leq 50 \mu\text{s}, t_p / T = 1/2)$	$I_{FM}$	200	mA
Power dissipation		$P_D$	200	mW
Operating temp. range		$T_{amb}$	-20 to +80	$^{\circ}\text{C}$
Storage temp. range		$T_{stg}$	-40 to +100	$^{\circ}\text{C}$
Lead soldering temp.	$t < 5\text{s}$ , 3mm from case	$T_{slg}$	260	$^{\circ}\text{C}$
Junction temperature		$T_J$	100	$^{\circ}\text{C}$

### Optical and Electrical Characteristics

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

Parameter	Symbol	Conditions	Min	typ	max	Unit
Forward voltage	$V_F$	$I_F = 20\text{mA}$		1.4	1.6	V
Forward voltage	$V_F$	$I_F = 100\text{mA}$		1.6	2.0	V
Reverse voltage	$V_R$	$I_R = 10\mu\text{A}$	5			V
Radiant Power	$\Phi_e$	$I_F = 20\text{mA}$	7	11		mW
Radiant Power	$\Phi_e$	$I_F = 100\text{mA}$		45		mW
Peak wavelength	$\lambda_p$	$I_F = 20\text{mA}$	840	850	860	nm
Spectral bandwidth at 50%	$\Delta\lambda_{0,5}$	$I_F = 20\text{mA}$		40		nm
Viewing angle	$\varphi$	$I_F = 20\text{mA}$		20		deg.
Switching time	$t_r, t_f$	$I_F = 20\text{mA}$		10/ 20		ns