

Red light LED - type L-18

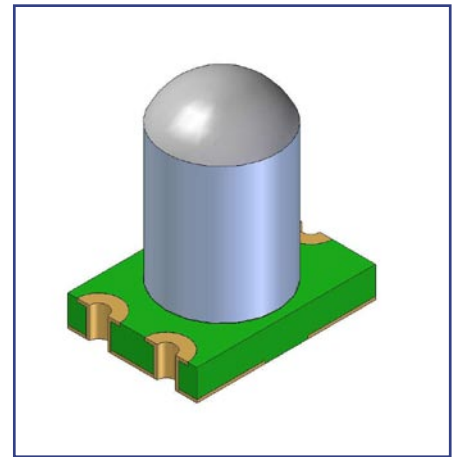


CHARACTERISTICS

- ▶ Latest LED technology
- ▶ Integrated, coordinated high-efficiency optics
- ▶ No additional lenses required
- ▶ Sharply defined light spot
- ▶ Extremely small reception and squint angles
- ▶ 1,8mm model, metal housing

APPLICATION

- ▶ For all optical sensors
- ▶ For precise lighting



▶ **MAXIMUM RATINGS (T=25°C)**

Parameter	Test conditions	typ. value	Unit
Operating temperature (T_{Op})		-10 / + 60	°C
Thermal resistance (R)	Junction/soldering pad	200	K/W
Surge current (I_{FM})	$t_p = 70\mu s, t_p/T=0,143$	180 - 200	mA

▶ **OPTICAL AND ELECTRONIC VALUES (T=25°C)**

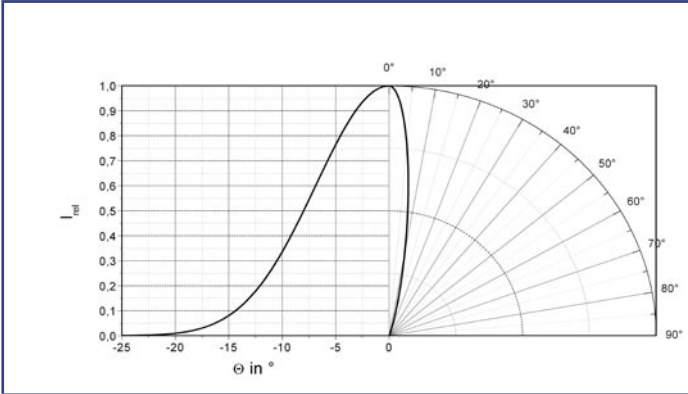
Parameter	Test conditions	typ. value	Unit
Peak wavelength (λ)	$I_F=20 \text{ mA}$	665	nm
Radiant power (Φ_e)	$I_F=20 \text{ mA}$	1,3	mW
Spectral range of sensitivity (by 50%) ($\Delta\lambda$)	$I_F=20 \text{ mA}$	20	nm
Half power angle (θ)	$I_F=60 \text{ mA}, (t_p/T=1/12)$	8	deg
Forward voltage ($V_{F 20}$) ($V_{F 100}$)	$I_F=20 \text{ mA}$ $I_F=100 \text{ mA}$	1,8 2,3	V V
Reverse voltage (V_R)	$I_R=10 \mu A$	5	V
Rise and fall time t_r t_f	$I_F=20 \text{ mA}$ $I_F=20 \text{ mA}$	150 80	ns ns



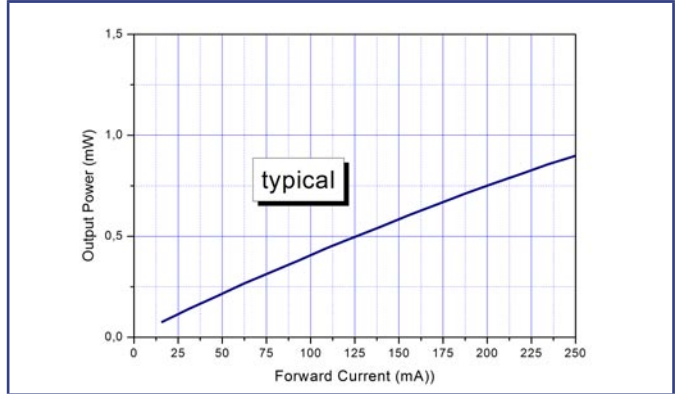
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► GRAPHS

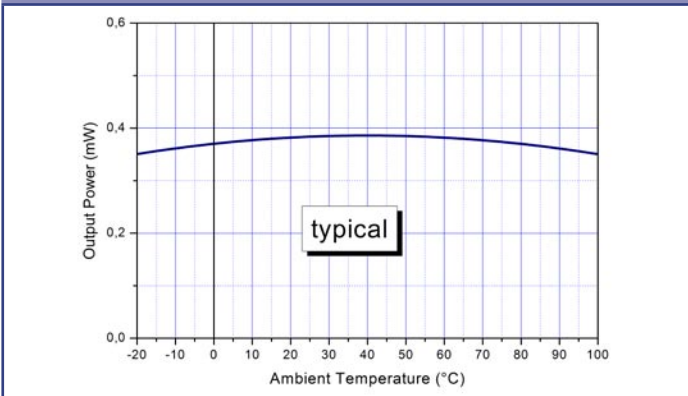
RADIATION CHARACTERISTIC : $I_{rel} = f(\theta)$



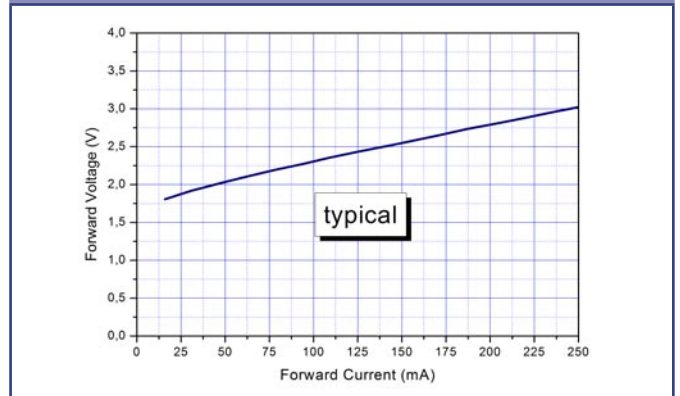
RADIANT OUTPUT POWER ($t_p=70\mu s, t_p/T=0,143, T=25^\circ C$)



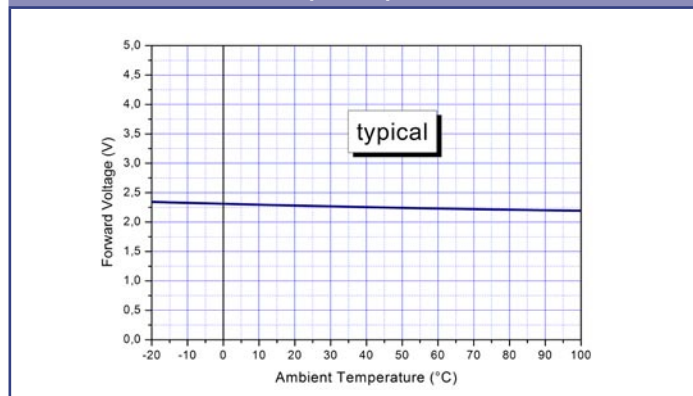
RADIANT OUTPUT POWER ($t_p=70\mu s, t_p/T=0,143, I=100mA$)



FORWARD VOLTAGE ($t_p=70\mu s, t_p/T=0,143, T=25^\circ C$)



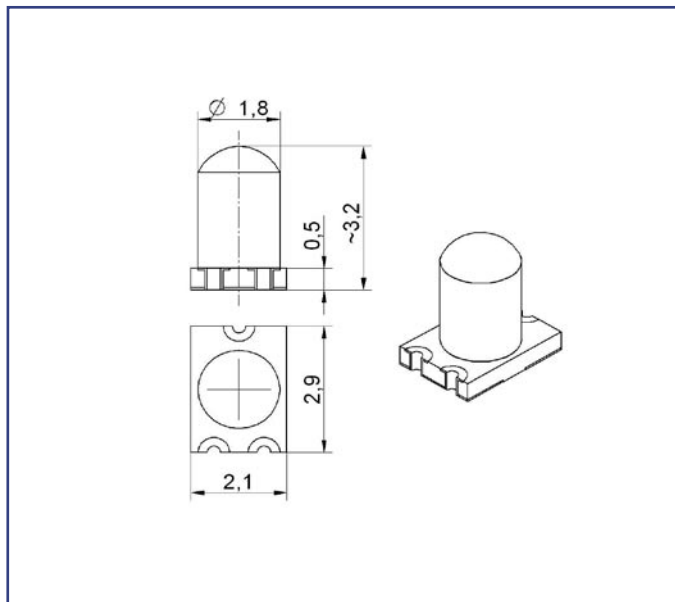
FORWARD VOLTAGE ($t_p=70\mu s, t_p/T=0,143, I=100mA$)



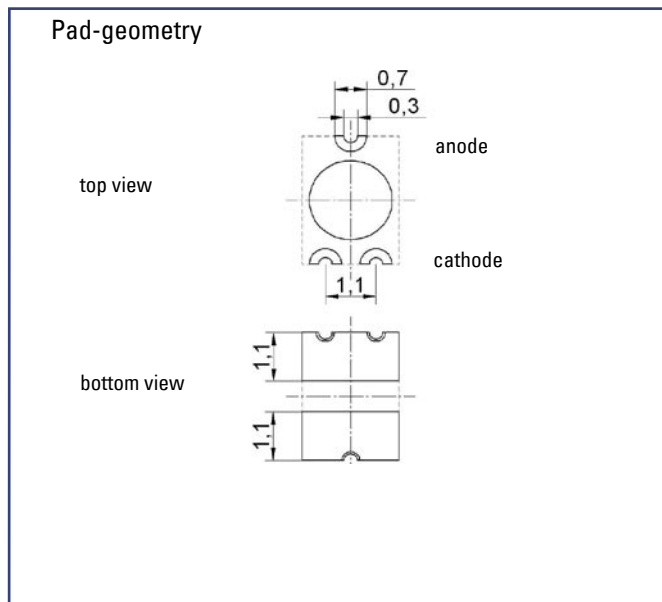


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► DIMENSIONS



► CONNECTOR PIN-ASSIGNMENT



PART DESIGNATION

OE-L-18-VA1-SL20-4-0106