

High precision red light LED - type L-30

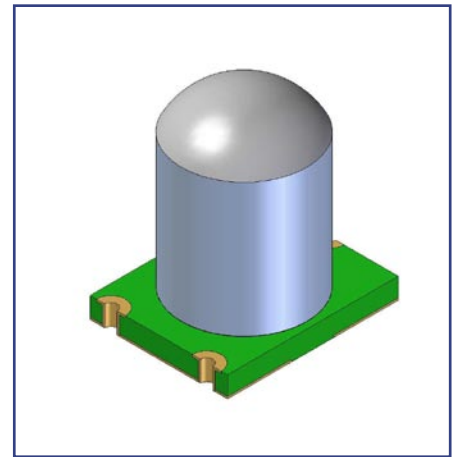


CHARACTERISTICS

- ▶ microSPOT is the latest LED technology by STM
- ▶ Integrated, coordinated microoptics
- ▶ No additional lenses required
- ▶ Sharply defined light spot
- ▶ Extremely small reception and squint angles
- ▶ 3mm model, metal housing

APPLICATION

- ▶ For all optical sensors
- ▶ For precise lighting



micro ● SPOT®

▶ MAXIMUM RATINGS (T=25°C)

Parameter	Test conditions	typ. value	Unit
Operating temperature (T_{Op})		-10 / + 60	°C
Forward current (I_F)		35	mA
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 (bei T=25°C)

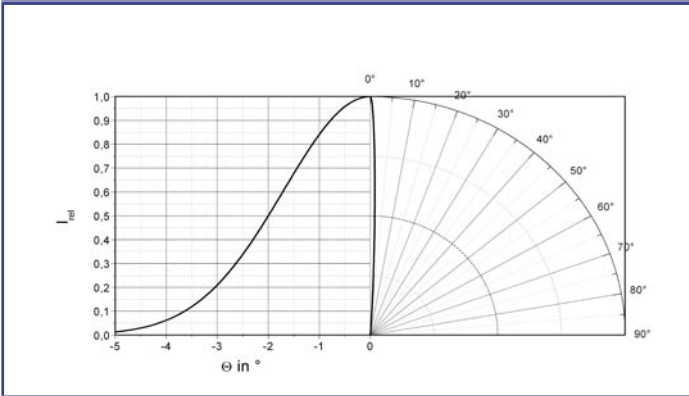
Parameter	Test conditions	typ. value	Unit
Peak wavelength (λ)	$I_F = 20 \text{ mA}$	655	nm
Radiant power (Φ_e)	$I_F = 20 \text{ mA}$	0,5	mW
Spectral range of sensitivity (by 50%) ($\Delta\lambda$)	$I_F = 20 \text{ mA}$	20	nm
Half power angle (θ)	$I_F = 60 \text{ mA}, (t_p/T = 1/12)$	2	deg
Forward voltage (V_{F20})	$I_F = 20 \text{ mA}$	2,25	V
Reverse voltage (V_R)	$I_R = 100 \mu A$	5	V



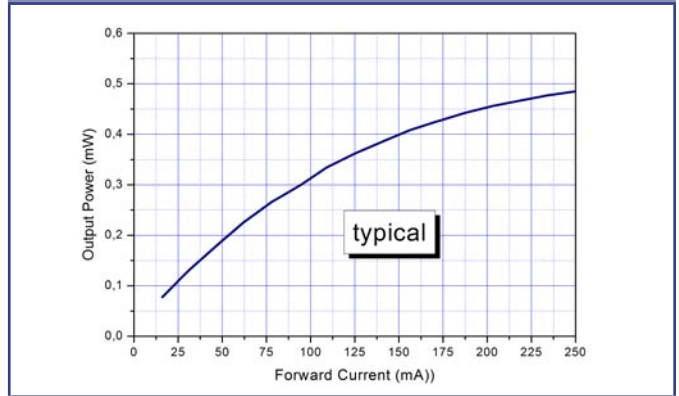
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► GRAPHS

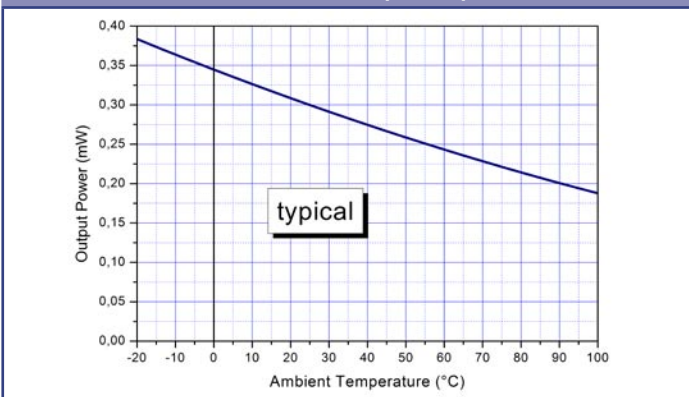
RADIATION CHARACTERISTIC : $I_{rel} = f(\theta)$



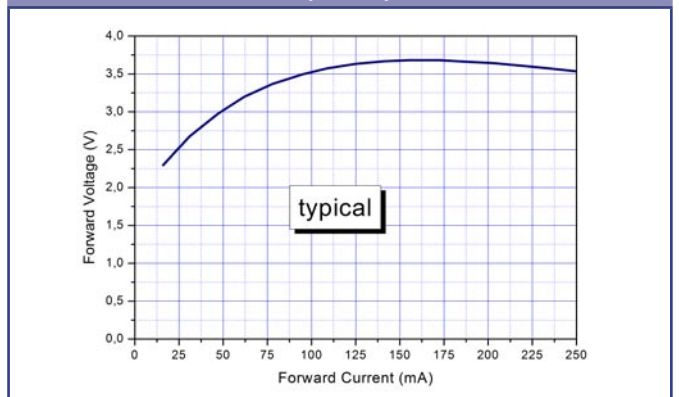
RADIANT OUTPUT POWER ($t_p=70\mu s, t_p/T=0,143, T=25^\circ C$)



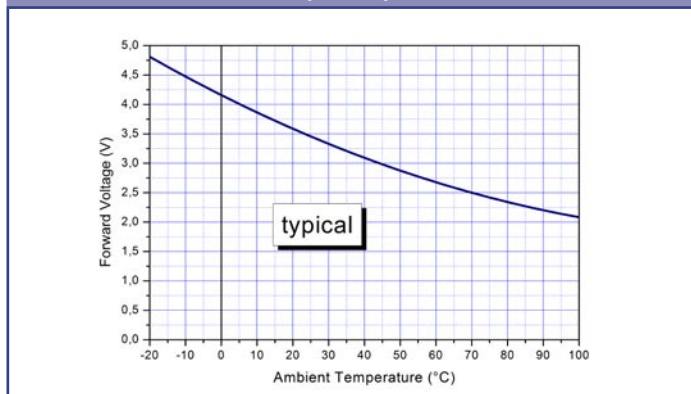
RADIANT OUTPUT POWER ($t_p=70\mu s, t_p/T=0,143, I=100mA$)



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



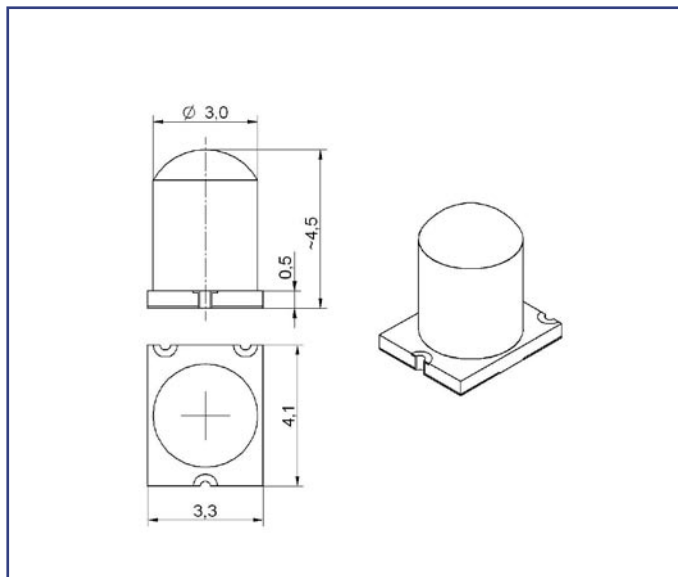
FORWARD VOLTAGE ($t_p=70\mu s, t_p/T=0,143, I=100mA$)



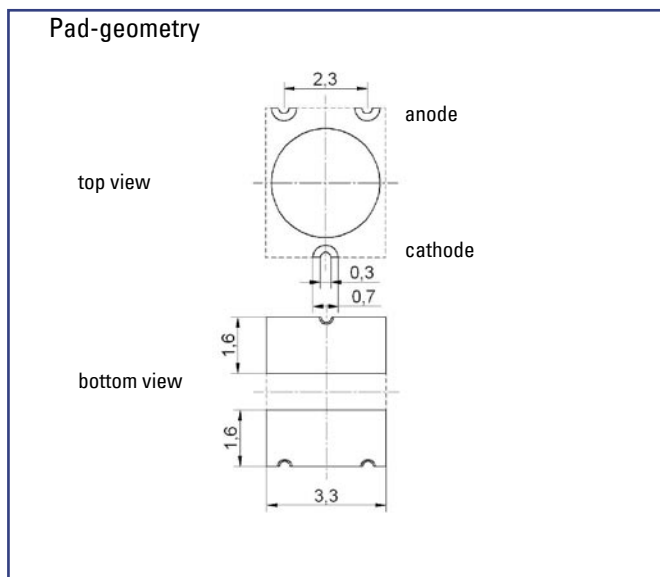


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► DIMENSIONS



► CONNECTOR PIN-ASSIGNMENT



PART DESIGNATION

OE-L-30-VA1-SL21-8-0112