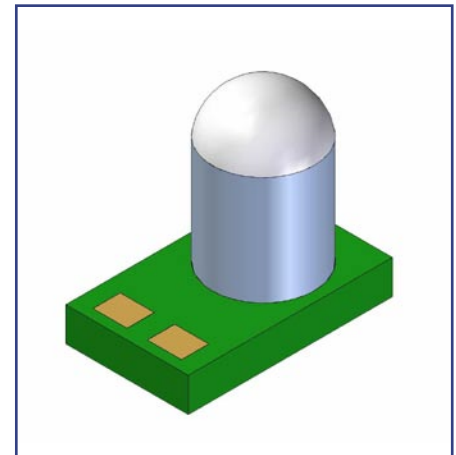


Si - PIN - Photo diode - type FD-30



**CHARACTERISTICS**

- ▶ Increased sensitivity
- ▶ Integrated, coordinated high-efficiency optics
- ▶ No additional lenses required
- ▶ Extremely small reception and squint angles
- ▶ 3mm model, metal housing
- ▶ Solder pads for cable connection



**APPLICATION**

- ▶ For all optical sensors

▶ **MAXIMUM RATINGS**

Parameter	Test conditions	typ. value	Unit
Operating temperature range ( $T_{Op}$ )		-20 / + 70	°C
Reverse voltage ( $V_R$ )		> 50	V

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

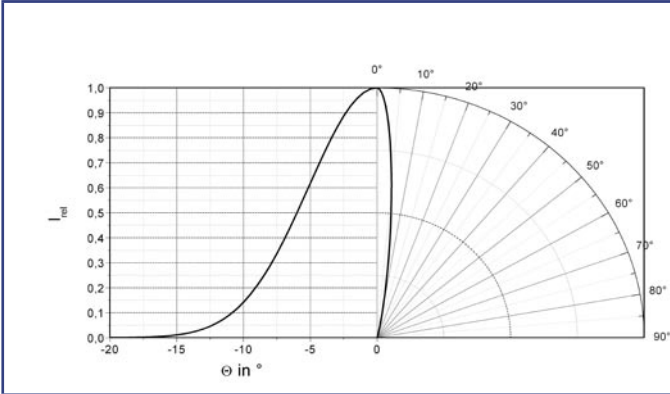
Parameter	Test conditions	typ. value	Unit
Chip size		0,76 x 0,76	mm x mm
Chip height		0,24	mm
Dimensions of radiant sensitive area		0,55 x 0,55	mm x mm
Spectral sensitivity	650nm 875nm 940nm	0,26 0,44 0,35	A / W
Half power angle ( $\theta$ )		6	deg
Dark current	$V_R = 15V$	< 4 (Typ. 0,2)	nA
Rise and fall time of the photocurrent	$V_R = 20 V,$ $\lambda = 860nm,$ $R = 50 \Omega$	10	ns
Cut-of-frequency (-3dB)	$V_R = 20 V,$ $\lambda = 860nm,$ $R = 50 \Omega$	35	MHz
Noise equivalent power	$V_R = 0 V$ $\lambda = 900nm$	$6 \times 10^{-15}$	$\frac{W}{\sqrt{Hz}}$
Capacitance	$V_R = 15 V$	0,6	pF



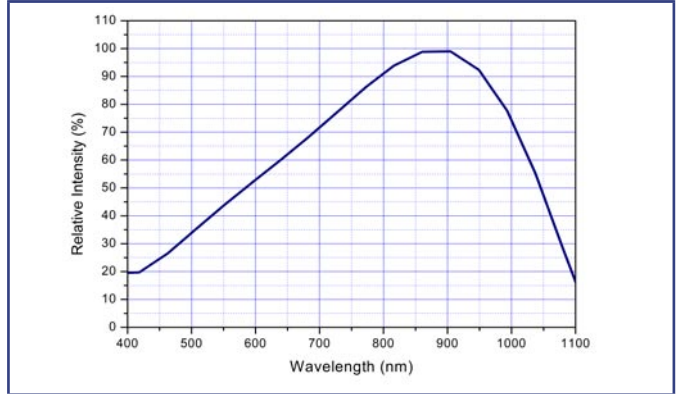
**Si - PIN - Photo diode - type FD-30**

▶ **GRAPHS**

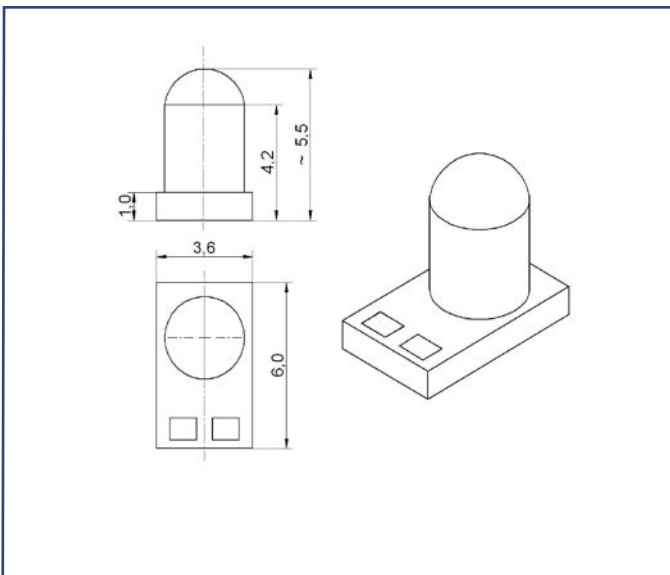
**DIRECTIONAL CHARACTERISTICS :  $I_{rel} = f(\theta)$**



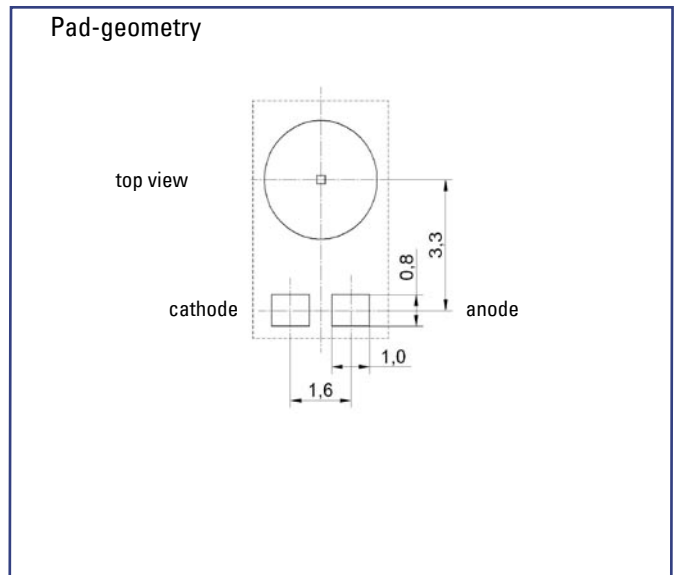
**RELATIVE SPECTRAL SENSITIVITY**



▶ **DIMENSIONS**



▶ **CONNECTOR PIN-ASSIGNMENT**



**PART DESIGNATION**

**OE-FD-30-VA1-SL10-9-0119**