

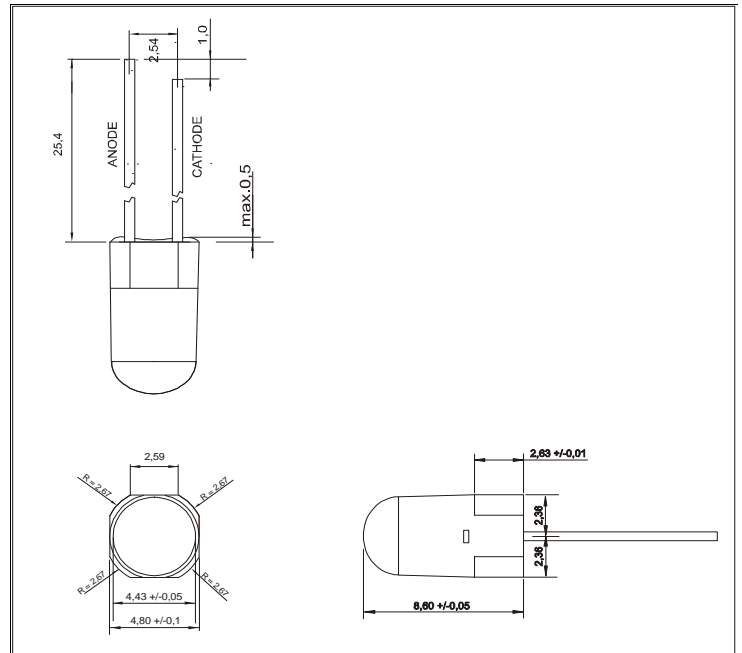
## PIN-Photodiode

6,5°

FSR7851PBN

### Features

- \* PIN-photodiode for general purpose  
Based on Silicon- Photodiode
- \* **Verry narrow viewing angle PD with 6,7°**
- \* High responsivity with typ. 0,55 A/W
- \* Daylight filtered black housing version  
optimized for 850nm /870nm/950nm
- \* Mechanical matched with FQR65-LED-serie
- \* SMT-Version **FSS7851PBN**



### Electrical and optical characteristics and absolute maximum ratings ( Ta=25°C unless otherwise noted )

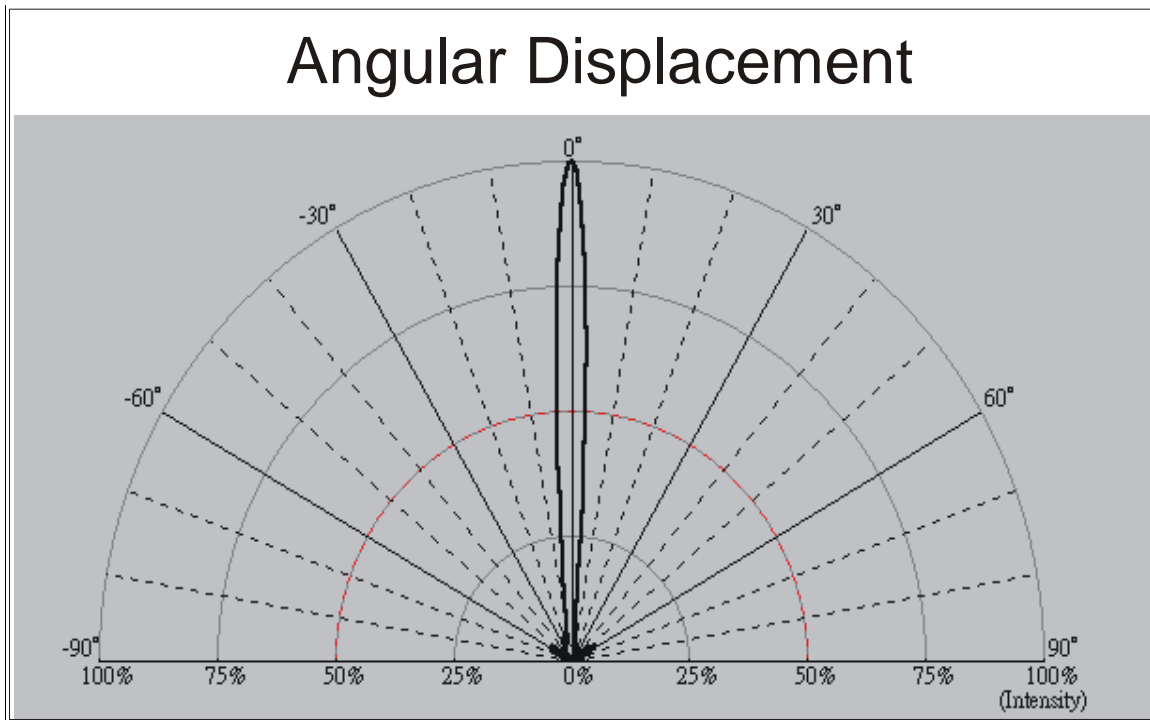
Symbol	Parameter	MIN	Typ	MAX	Unit	Test conditions
I <sub>Light</sub>	Reverse Light Current	2	6		μA	Ee= 1mW/cm <sup>2</sup> @870nm
I <sub>DARK</sub>	Reverse Dark Current		2	10	nA	VR=10V; Ee=0 mW/cm <sup>2</sup>
I <sub>short</sub>	Short Circuit Current		11		μA	Ee= 1mW/cm <sup>2</sup> @870nm
V <sub>RM</sub>	Reverse Voltage	20			V	
V <sub>forward</sub>	Reverse Breakdown Voltage	20			V	IR = 100μA Ee=0mW/cm <sup>2</sup>
V <sub>OC</sub>	Open Circuit Voltage		410		mV	Ee=5mW/cm <sup>2</sup> @900nm
λ <sub>Peak</sub>	Peak Wavelength		900		nm	max. sensitivity
λ <sub>0,5</sub>	Spectral range	720		1100	nm	I=10%
t <sub>f</sub>	Fall time		10		ns	VR=10V; RL=1KOhm
t <sub>r</sub>	Rise time		10		ns	VR=10V; RL=1KOhm
A	Active Array		0,0314		mm <sup>2</sup>	
2Φ <sub>0,5</sub>	Response Angle	5,5	6,5	8	deg.	Φ <sub>i</sub> = 50%
C <sub>J</sub>	Junction Capacity		3	6	pF	VR=5V; f=1 MHz; Ee=0 mW/cm <sup>2</sup>
T <sub>Operating</sub>	Operating Temperature	- 40		85	°C	
T <sub>Storage</sub>	Storage Temperature	- 40		85	°C	
T <sub>Soldering</sub>	Soldering Temperature			260	°C	5mm from case @5 sec.
Θ <sub>j-PIN</sub>	Thermal Resistance		450		K/W	
P <sub>tot</sub>	Total Power Dissipation			100	mW	

Order Informations :

FSR7851PBN

Bulk (1000pcs./bag)

Fietje reserves the right to make changes at any time in order to improve design and to supply the best product possible, contact Fietje for latest device specification sheets before using.



**Pls. contact us for more technical detail informations !**