

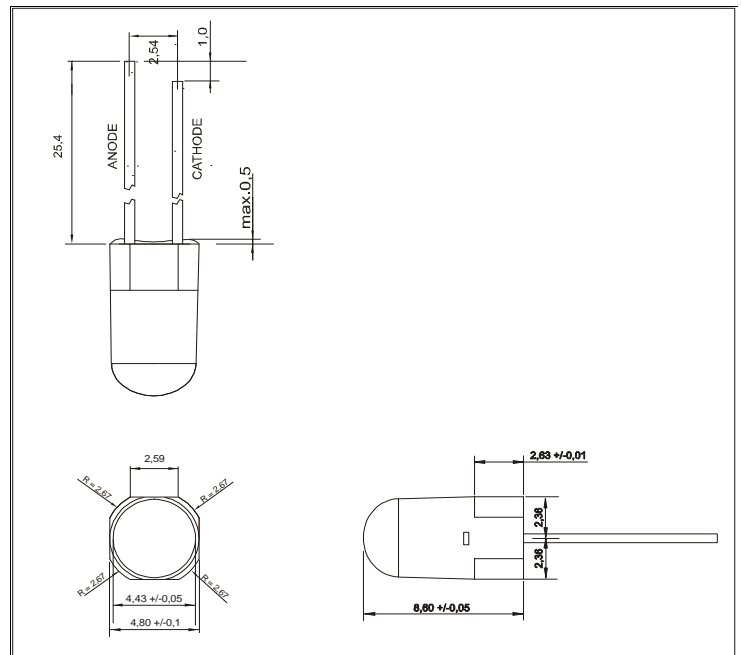
# PIN-Photodiode

# 4°

# FSR7851PAN

## Features

- \* PIN-photodiode for general purpose  
Based on Silicon- Photodiode
- \* **Verry narrow viewing angle PD with 4°**
- \* 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 **FSS7851PAN**



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

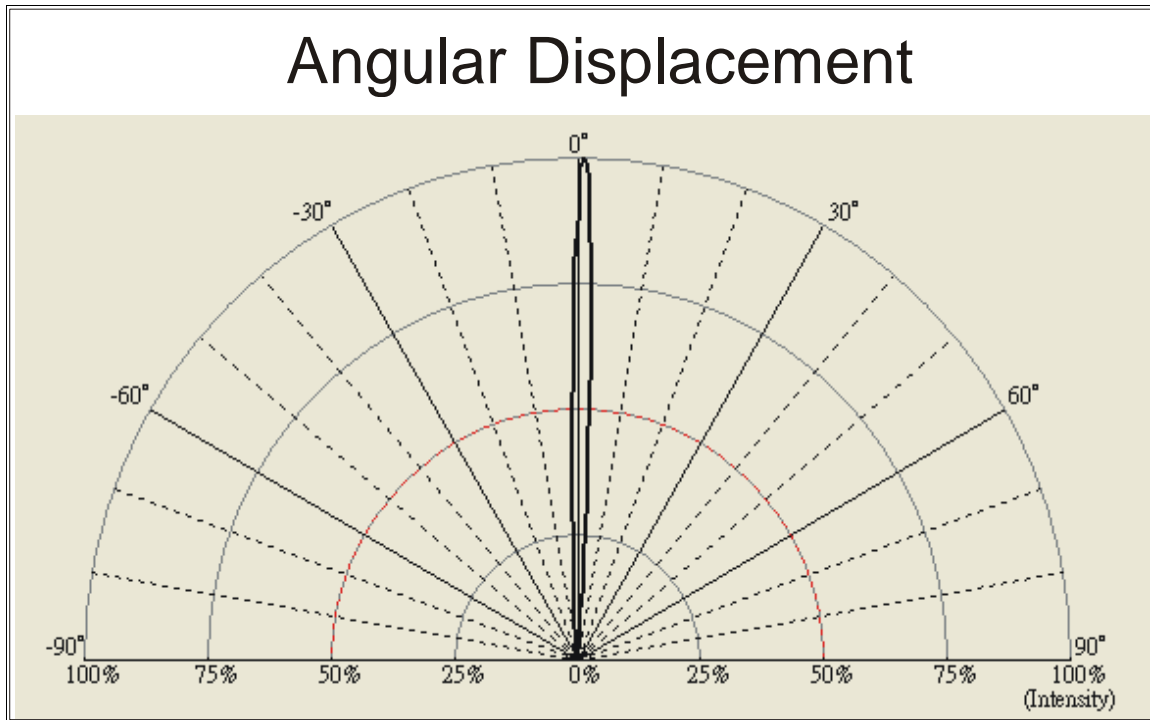
| Symbol                 | Parameter                 | MIN  | Typ    | MAX  | Unit            | Test conditions                         |
|------------------------|---------------------------|------|--------|------|-----------------|---|
| I <sub>Light</sub>     | Reverse Light Current     | 2    | 9      |      | 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            | 3,5  | 4      | 5    | 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 :

FSR7851PAN

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 !**