

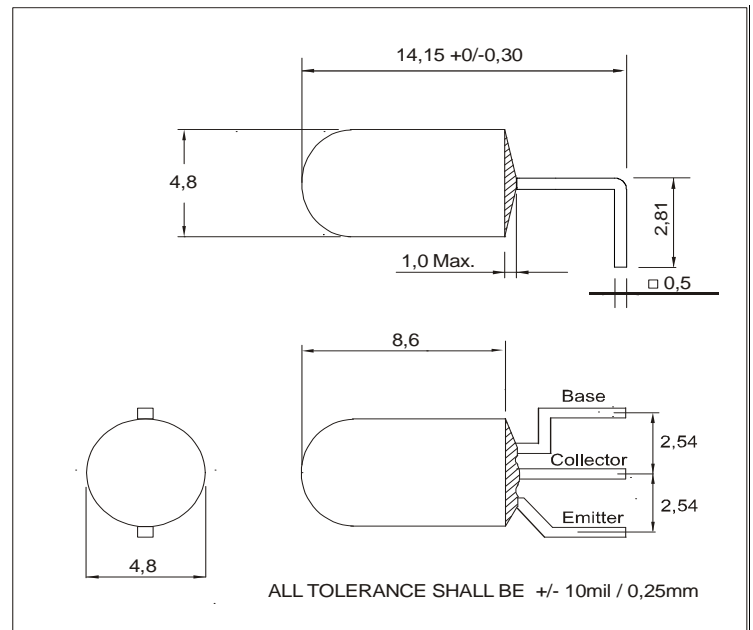
# Phototransistor

## 860nm

## FSR3849FC - FSR3851FC

### Features

- \* 4.8mm Phototransistor with separate Base for general purpose
- \* Daylight filtered black housing
- \* Mechanical matched with FQR5553FC
- \* Mountable in row with 5mm distance
- \* Medium viewing angle of typ. 35 degree



### 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>	Light Current FSR3849FC	1,7			mA	V <sub>ce</sub> =10V; E <sub>e</sub> = 0.5mW/cm <sup>2</sup> ; @940nm
I <sub>Light</sub>	Light Current FSR3850FC	2,1			mA	V <sub>ce</sub> =10V; E <sub>e</sub> = 0.5mW/cm <sup>2</sup> ; @940nm
I <sub>Light</sub>	Light Current FSR3851FC	2,6			mA	V <sub>ce</sub> =10V; E <sub>e</sub> = 0.5mW/cm <sup>2</sup> ; @940nm
I <sub>ceo</sub>	Collector Dark Current			100	nA	V <sub>ce0</sub> =10V; E <sub>v</sub> =0
V <sub>bceo</sub>	Collector-Emitter Breakdown Voltage	30			V	I <sub>c</sub> = 100μA H=0mW/cm <sup>2</sup>
V <sub>beco</sub>	Collector-Emitter Breakdown Voltage	5			V	I <sub>c</sub> = 100μA H=0mW/cm <sup>2</sup>
V <sub>sat</sub>	Collector-Emitter Saturation Voltage			0,3	V	I <sub>b</sub> = 100μA I <sub>c</sub> =2mA
λ <sub>Peak</sub>	Peak Wavelength		860		nm	max. sensitivity
λ <sub>0,5</sub>	Spectral range	720		1150	nm	I=10%
t <sub>f</sub>	Fall time		15		μs	V <sub>R</sub> =5V; R <sub>L</sub> =1KOhm, I <sub>c</sub> =1mA
t <sub>r</sub>	Rise time		15		μs	V <sub>R</sub> =5V; R <sub>L</sub> =1KOhm, I <sub>c</sub> =1mA
A	Active Array		0,146		mm <sup>2</sup>	
b	Current Gain FSR3849FC	500		1000		V <sub>ce</sub> =5V; I <sub>c</sub> =2mA
b	Current Gain FSR3850FC	800		1300		V <sub>ce</sub> =5V; I <sub>c</sub> =2mA
b	Current Gain FSR3851FC	1000		1800		V <sub>ce</sub> =5V; I <sub>c</sub> =2mA
2Φ <sub>0,5</sub>	Response Angle		35		deg.	Φ <sub>i</sub> = 50%
C <sub>J</sub>	Junction Capacity		6		pF	V <sub>R</sub> =0V; f=1 MHz; E <sub>v</sub> =0 Lux
T <sub>Operating</sub>	Operating Temperature	-25		85	°C	
T <sub>Storage</sub>	Storage Temperature	-25		100	°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			50	mW	

Order Informations :

FSR3849FC  
 FSR3850FC  
 FSR3851FC

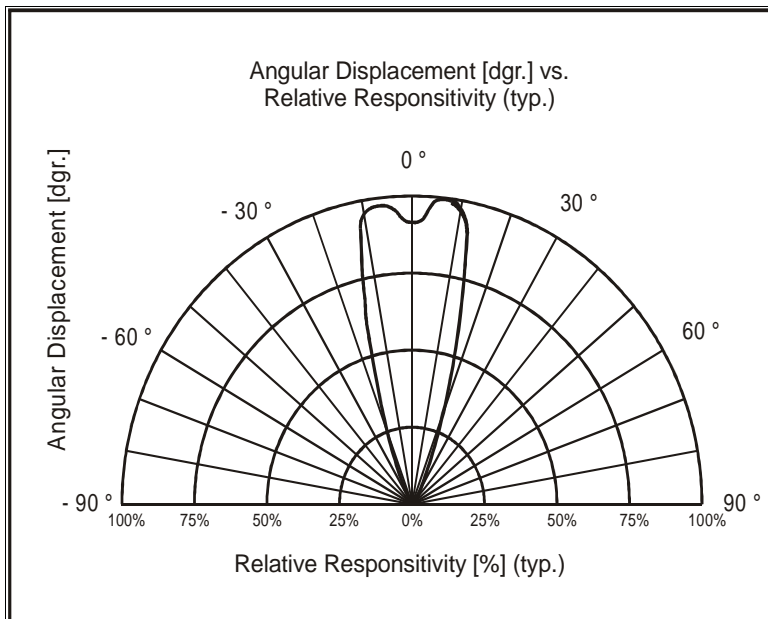
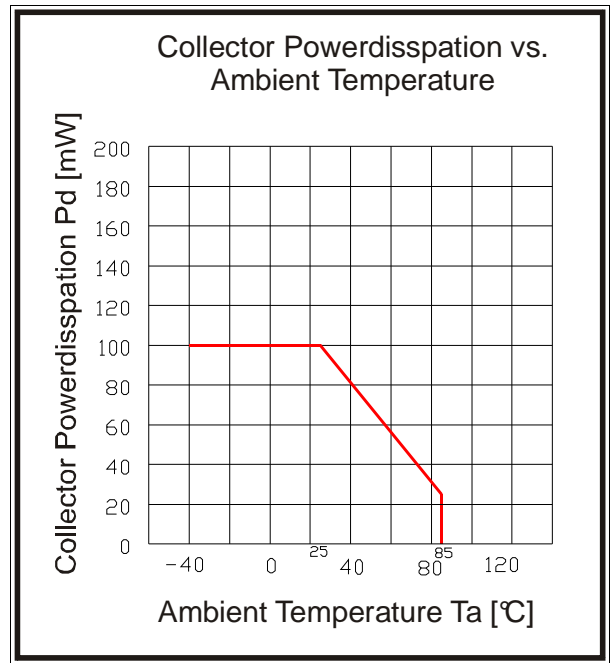
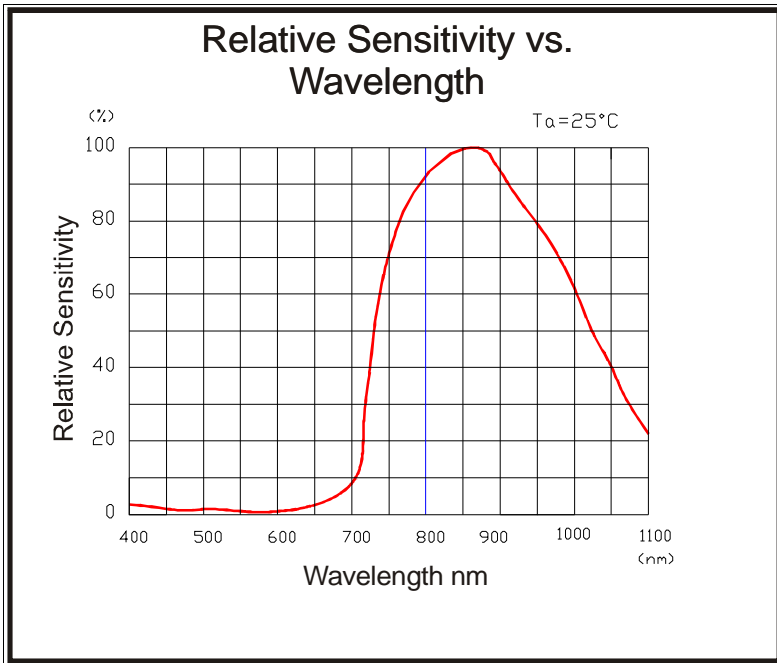
Bulk  
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Fietje reserves the right to make changes at any time in order to improve design and to supply the best product possible, contact Fietje for latest device specification sheets before using.

**Phototransistor**

**860nm**

**FSR3849FC - FSR3851FC**



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