



Figure 2. Relative spectral response vs. wavelength.

**CAUTIONS:** *It is advised that normal static precautions be taken in handling and assembly of this component to prevent damage and/or degradation which may be induced by ESD.*

### Absolute Maximum Ratings

For implementations where case to ambient thermal resistance is  $\leq 50^{\circ}\text{C}/\text{W}$

Parameter	Symbol	Min.	Max.	Units
Storage Temperature	$T_S$	-40	85	$^{\circ}\text{C}$
Operating Temperature	$T_A$	-40	85	$^{\circ}\text{C}$
Supply Voltage	$V_{CC}$	2.4	5.5	V

### Recommended Operating Conditions

Parameter	Symbol	Min.	Max.	Units	Conditions
Operating Temperature	$T_A$	-40	85	$^{\circ}\text{C}$	
Supply Voltage	$V_{CC}$	2.4	5.5	V	

**Electrical & Optical Specifications ( $T_A = 25^\circ\text{C}$ )**

Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Photo Current (I)	$I_{\text{PH1}}$	10	20	33	$\mu\text{A}$	$V_{\text{CC}} = 3.0\text{ V}$ , Lux = 10 <sup>[2]</sup>
Photo Current (II)	$I_{\text{PH2}}$	136	250	410	$\mu\text{A}$	$V_{\text{CC}} = 3.0\text{ V}$ , Lux = 100 <sup>[2]</sup>
Photo Current (III)	$I_{\text{PH3}}$	-	300	-	$\mu\text{A}$	$V_{\text{CC}} = 3.0\text{ V}$ , Lux = 100 <sup>[1]</sup>
Dark Current	$I_{\text{DARK}}$	-	50	160	nA	$V_{\text{CC}} = 3.0\text{ V}$ , Lux = 0
Light Current Ratio	$I_{\text{PH3}} / I_{\text{PH2}}$	-	1.2	-	-	-
Rise Time	$T_{\text{RISE}}$	-	0.95	2	ms	$V_{\text{CC}} = 3.0\text{ V}$ , Lux = 100, $R_{\text{load}} = 1\text{ k}\Omega$ <sup>[3]</sup>
Fall Time	$T_{\text{FALL}}$	-	0.8	2	ms	$V_{\text{CC}} = 3.0\text{ V}$ , Lux = 100, $R_{\text{load}} = 1\text{ k}\Omega$ <sup>[3]</sup>

**Notes:**

1. Illuminance by CIE standard light source (incandescent lamp).
2. Fluorescent light is used as light source. White LED is substituted in mass production.
3. White LED is used as light source.

**Light Measurement Circuit and Waveforms**

