

Wavelength	Type	Technology	Case
Red	water clear	AlGaAs/GaAs	5 mm plastic lens

	<b>Description</b> Selective photodiode mounted in standard 5 mm package without standoff . Narrow response range (660 nm peak) by means of integrated filter Note: Special packages with standoff available on request
	<b>Applications</b> Optical communications, safety equipment, automation, analytics

### Miscellaneous Parameters

$T_{amb} = 25^{\circ}\text{C}$ , unless otherwise specified

Parameter	Test conditions	Symbol	Value	Unit
Active area		A	0.694	mm <sup>2</sup>
Operating temperature range		$T_{amb}$	-20 to +85	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	-30 to +100	$^{\circ}\text{C}$
Soldering Temperature	$t \leq 3 \text{ s}$ , 3 mm from case	$T_{sld}$	260	$^{\circ}\text{C}$
Acceptance angle at 50% $S_{\lambda}^{1)}$		$2\varphi$	56	deg.

### Optical and Electrical Characteristics

$T_{amb} = 25^{\circ}\text{C}$ , unless otherwise specified

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Breakdown voltage	$I_R = 10 \mu\text{A}$	$V_R$	5			V
Dark current	$V_R = 5 \text{ V}$	$I_D$		20	300	pA
Peak sensitivity wavelength <sup>1)</sup>	$V_R = 0 \text{ V}$	$\lambda_p$		660		nm
Responsivity at $\lambda_p^{1)}$	$V_R = 0 \text{ V}$	$S_{\lambda}$		1.05		A/W
Sensitivity range at 50%, lower limit <sup>1)</sup>	$V_R = 0 \text{ V}$	$\lambda_{min}$		610		nm
Sensitivity range at 50%, upper limit <sup>1)</sup>	$V_R = 0 \text{ V}$	$\lambda_{max}$		700		nm
Spectral bandwidth at 50% <sup>1)</sup>	$V_R = 0 \text{ V}$	$\Delta\lambda_{0.5}$		90		nm
Shunt resistance <sup>1)</sup>	$V_R = 10 \text{ mV}$	$R_{SH}$		1		G $\Omega$
Noise equivalent power <sup>1)</sup>	$\lambda = 660 \text{ nm}$	NEP		$4.2 \times 10^{-15}$		W/ $\sqrt{\text{Hz}}$
Junction capacitance <sup>1)</sup>	$V_R = 0 \text{ V}$	$C_J$		80		pF
Switching time ( $R_L = 50 \Omega$ ) <sup>1)</sup>	$V_R = 1 \text{ V}$	$t_r / t_f$		80 / 60		ns
Photo-current at illuminant A <sup>1,2)</sup>	$V_R = 0 \text{ V}$ $E_v = 1000 \text{ lx}$	$I_{ph}$		4.1		$\mu\text{A}$

<sup>1)</sup>for information only

<sup>2)</sup> Standard light source with a color temperature of 2856 K

Note: All measurements carried out with JENOPTIK Polymer Systems equipment

We reserve the right to make changes to improve technical design and may do so without further notice.

Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

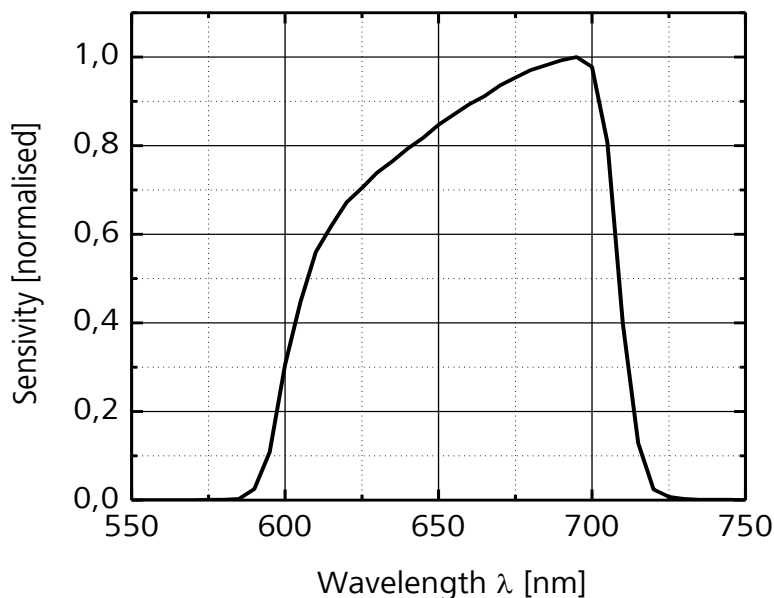
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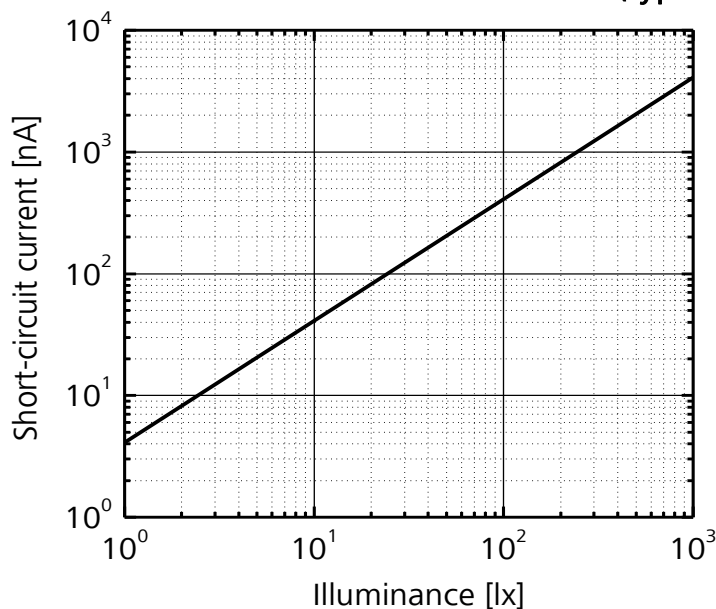
**Labeling**

Type	Lot N°	R <sub>D</sub> (typ.) [GΩ]	Quantity
EPD-660-5-0.9-2			

**Responsivity spectrum (typical)**



**Short-circuit current vs. illuminance (typical)<sup>1)</sup>**



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