

Wavelength	Type	Technology	Case
Red	SMD	AlGaAs/GaAs	SMD 1206

all dimensions: mm all tolerances: ± 0,1	Description Narrow bandwidth and high spectral sensitivity in the red visible range (610...700 nm), compact design in standard SMD package allows for easy circuit board mounting and assembling of arrays Applications Light barriers, optical communications, safety equipment, alarm systems
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Miscellaneous Parameters

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

Parameter	Test conditions	Symbol	Value	Unit
Active area		A	0.62	mm ²
Operating temperature range		T_{amb}	-20 to +85	°C
Storage temperature range		T_{stg}	-40 to +125	°C

Optical and Electrical Characteristics

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

Parameter	Test conditions	Symbol	Min	Typ	Max	Unit
Breakdown voltage ¹⁾	$I_R = 10 \mu\text{A}$	V_R		10		V
Dark current ($E_e = 0 \text{ W/m}^2$)	$V_R = 1 \text{ V}$	I_D		40	300	pA
Responsivity at λ_p	$V_R = 0 \text{ V}$	S_λ		0.42		A/W
Peak sensitivity	$V_R = 0 \text{ V}$	λ_p		660		nm
Sensitivity range at 50%	$V_R = 0 \text{ V}$	$\lambda_{min}, \lambda_{max}$	620		700	nm
Spectral bandwidth at 50%	$V_R = 0 \text{ V}$	$\Delta\lambda_{0.5}$		80		nm
Shunt resistance	$V_R = 10 \text{ mV}$	R_{SH}	200	400		GΩ
Noise equivalent power	$\lambda = 660 \text{ nm}$	NEP		8.5×10^{-15}		W/√Hz
Specific detectivity	$\lambda = 660 \text{ nm}$	D^*		9.2×10^{12}		cm · √Hz · W ⁻¹
Junction capacitance	$V_R = 0 \text{ V}$	C_J		40		pF
Switching time ($R_L = 50 \Omega$)	$V_R = 1 \text{ V}$	t_r, t_f		40		ns

¹⁾for information only

Labeling

Type	Lot N°	Typ. S_λ [A/W]	Quantity
EPD-660-1-0.9			

*Note: All measurements carried out with *EPIGAP* equipment

Optical sensitivity (typically)