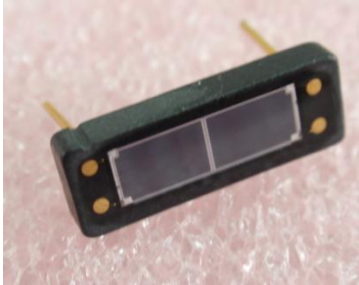


Blue enhanced silicon PDA

OSA15-2-BC



Description

OSA15-2-BC consists of two high sensitive, blue enhanced silicon photodiodes mounted on top-view ceramic stem.

Features

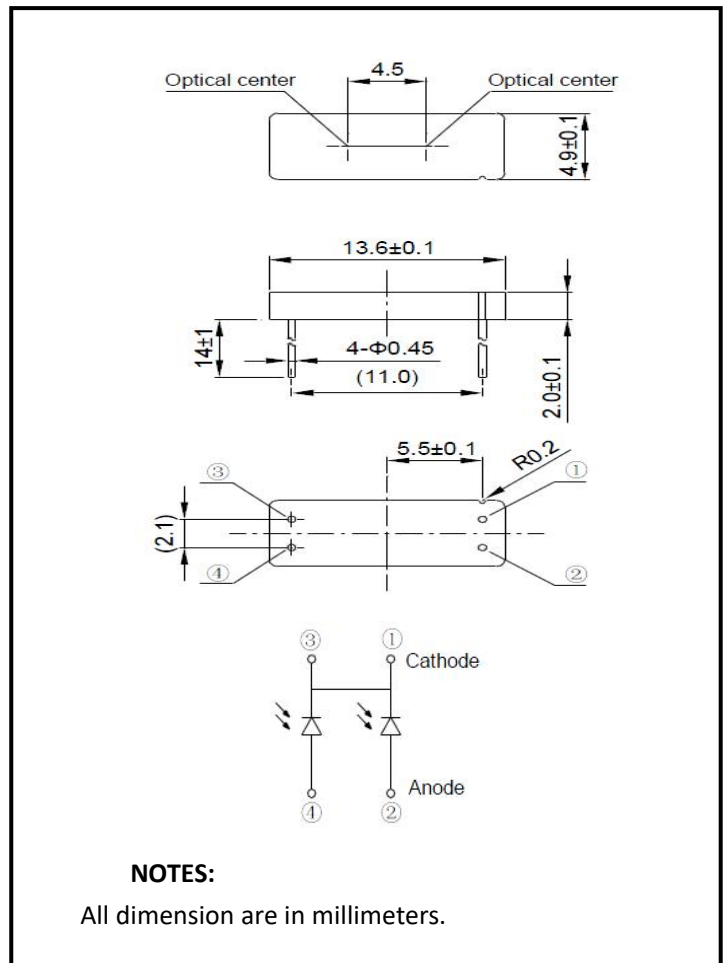
- *Top-view ceramic stem package
- * High-Sensitivity
- *Blue enhanced
- * Rohs compliance

General Ratings

- * Type Silicon Photodiode
- * High linearity
- * Chip active area: 4.2mm*3.2*2mm
- * Low dark current

Applications

- *Color sorter
- *Genreal usage
- *Optical switch



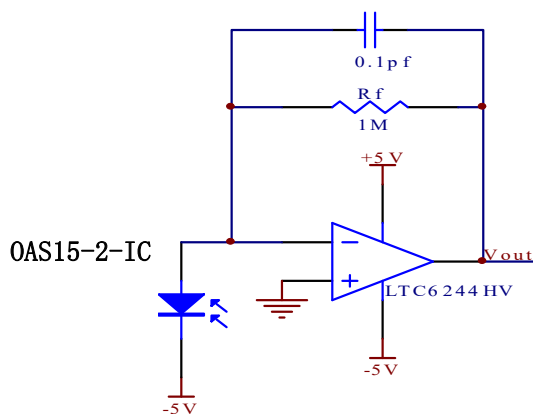
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Absolute Maximum Ratings (Ta=25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Short circuit Current	I _{sc}	Ev=100lx fc=2856k*		50		μA
Isc Temperature Coefficient	TC I _{sc}	2856k		1.1		%/°C
Open Circuit Voltage	V _{oc}	Ev=100lx fc=2856k*		447		mV
V _{oc} Temperature Coefficient	TC V _{oc}	2856k		-2.2		mV/°C
Dark current	I _D	V _R =10mV		10		pA
		V _R =10V		60		
Rise time	t _R	V _R =5V;λ=850nm;R _L =50Ω		1.5		μs
Tempcoeffi-cient of I _D	T _{CD}			0.18		times/°C
Reverse breakdown voltage	V _{(BR)R}	I _R =100μA Ev=0lx	35			V
Junction Capacitance	C _J	V _R =0V f=1MHz		800		pF
		V _R =10V f=1MHz		100		
Photo sensitivity	S _R	650nm		0.45		A/W
		940nm		0.60		
Spectral Application Range	λ _{range}		340		1100	nm
Spectral Response-Peak	λ _p			940		nm
Shunt resistance	R _{sh}	V _R =10mV		1.0		GΩ
Rsh Temperature Coefficient	TC R _{sh}			0.18		%/°C
Angular Resp 50% Resp Pt	θ ^{1/2}			±60		Degrees
Noise Equivalent Power	NEP	V _R =10V λ=940nm		0.73×10 ⁻¹⁴		W/Hz ^{1/2}
Specific Detectivity	D*	V _R =10V λ=940nm		5.26×10 ¹³		cm(Hz/W) ^{1/2}

* Ev: Illuminance by CIE standard light source A (tungsten lamp)

Typical application circuit

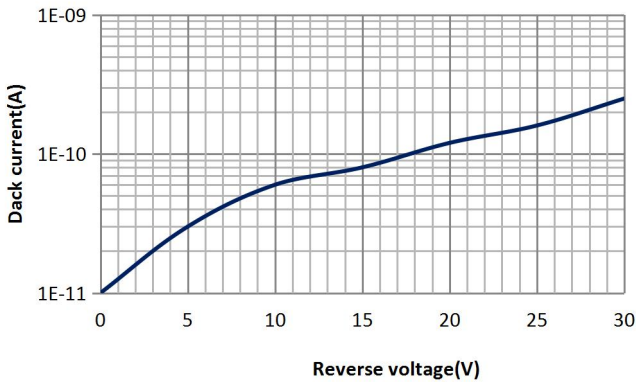


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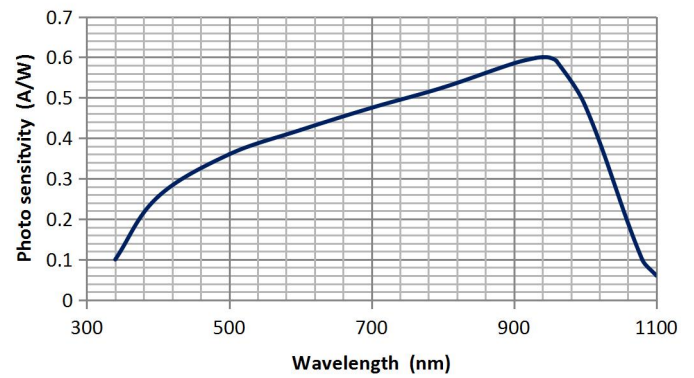


OSA15-2-BC

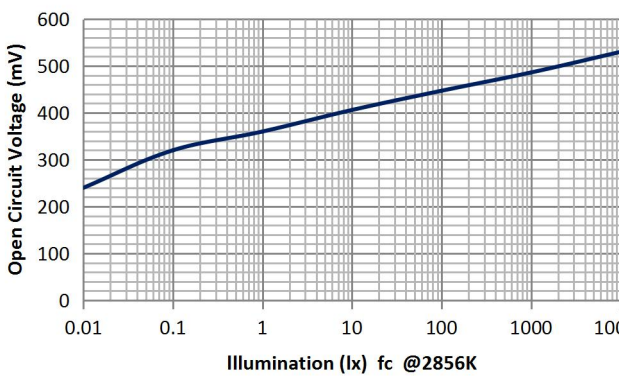
■ Dark current vs. reverse voltage



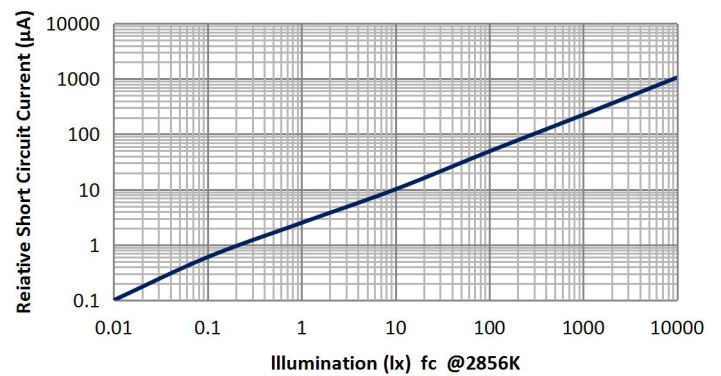
■ Spectral response



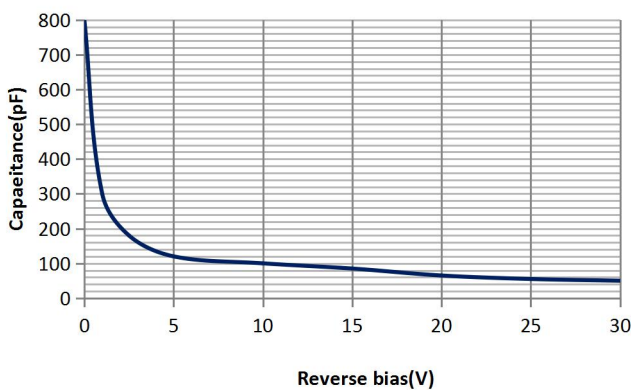
■ Open circuit Voltage vs Illumination



■ Relative Short Circuit Current vs. Illumination



■ Relative Junction Capacitance VS. Voltage



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