OL2100, OL2100-DF

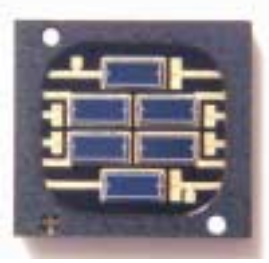
6 Chip PIN Photodiode Array for high temperature Encoder Applications

Features of this photodiode array:

- **High operating temperature up to 125°C**
- **Low dark current**
- **Low capacitance**
- **High switching speed**
- **Good uniformity**
- **Photoconductive or photovoltaic use**
- **With (OL2100-DF) or without (OL2100) daylight filter**

Applications :

- **Optical encoders, linear or rotary**



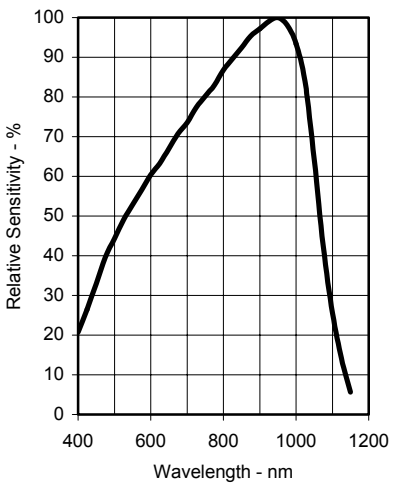
OL2100

OL2100-DF

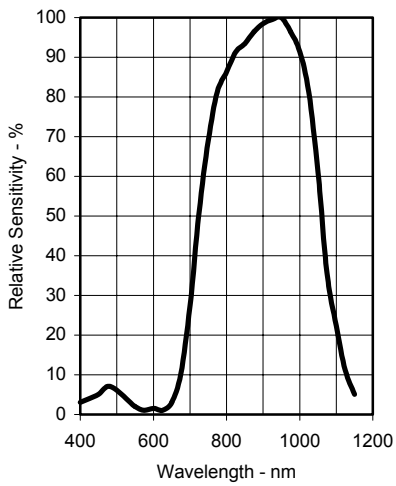
Compatible to KOM2100 or OPR2100

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating and storage temperature OL2100-DF OL2100	T_{op}, T_{stg}	 -25 -55		 +85 +125	°C
Reverse breakdown voltage	V_R	50			V
Solder temperature (30sec.)	T_{sol}			235	°C
Spectral sensitivity (no filter)	S_λ	0.53	0.6		A/W
Spectral range (S>20% of S_{max}) OL2100 OL2100-DF	λ	 400 700		 1100 1100	nm
Wavelength of max. sensitivity	$\lambda_{S\ max}$		950		nm
Active area of each PD chip	A		2.5		mm²
Dimension of active area	L x W		2.5 x 1		mm²
Forward voltage (I_F = 10 mA, E = 0)	V_F		680		mV
Reverse dark current (V_R = 5 V, T = 20°C)	I_R		150	5000	pA
Reverse dark current (V_R = 5 V, T = 125°C)	I_R		1.1		µA
Rise and fall time (R_L = 50 Ω, V_R = 20 V, λ = 857 nm, I_P = 800 µA)	t_r,t_f		5	10	ns
Capacity (V_R = 20 V, f = 1 MHz, E = 0)	C_0		11	15	pF
Noise equivalent power (T = 25°C, V_R = 5 V, λ = 950 nm)	NEP		1.5×10^{-14}		W/√Hz

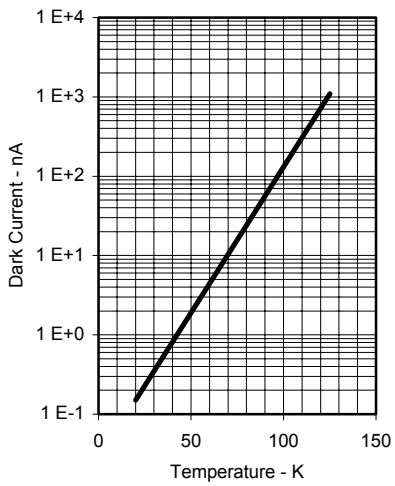
SPECTRAL SENSITIVITY OL2100



SPECTRAL SENSITIVITY OL2100-DF



DARK CURRENT OL2100, OL2100-DF



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