

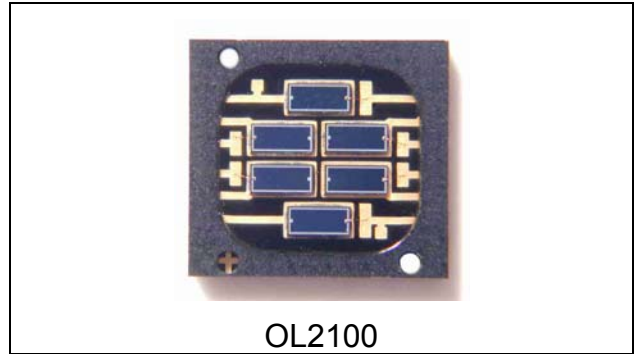
## 6 Chip PIN Photodiode Array for high temperature Encoder Applications

### 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

### Applications :

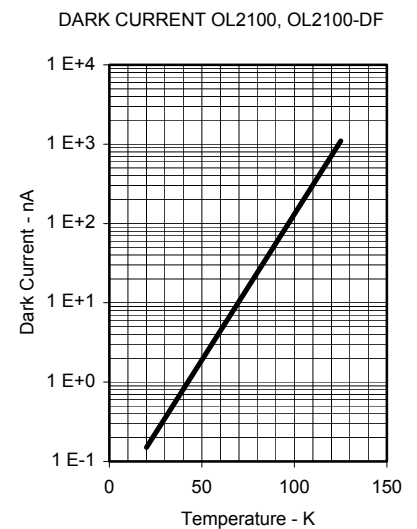
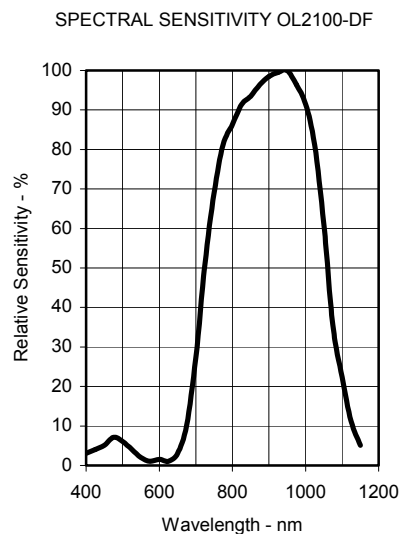
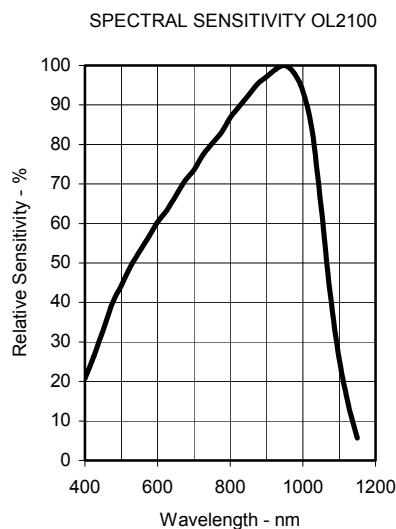
- Optical encoders, linear or rotary



OL2100

Compatible to KOM2100 or OPR2100

Parameter	Symbol	Min.	Typ.	Max.	Unit
Operating and storage temperature OL2100	$T_{op}, T_{stg}$	-55		+125	°C
Reverse breakdown voltage	$V_R$	50			V
Solder temperature (30sec.)	$T_{sol}$			235	°C
Spectral sensitivity (no filter) OL2100	$S_\lambda$	0.53	0.6		A/W
Spectral range ( $S > 20\%$ of $S_{max}$ ) OL2100	$\lambda$	400		1100	nm
Wavelength of max. sensitivity	$\lambda_{S_{max}}$		950		nm
Active area of each PD chip	A		2.5		mm <sup>2</sup>
Dimension of active area	L x W		2.5 x 1		mm <sup>2</sup>
Forward voltage ( $I_F = 10$ mA, $E = 0$ )	$V_F$		680		mV
Reverse dark current ( $V_R = 5$ V, $T = 20^\circ\text{C}$ )	$I_R$		150	5000	pA
Reverse dark current ( $V_R = 5$ V, $T = 125^\circ\text{C}$ )	$I_R$		1.1		$\mu\text{A}$
Rise and fall time ( $R_L = 50$ $\Omega$ , $V_R = 20$ V, $\lambda = 857$ nm, $I_P = 800$ $\mu\text{A}$ )	$t_r, t_f$		5	10	ns
Capacity ( $V_R = 20$ V, $f = 1$ MHz, $E = 0$ )	$C_0$		11	15	pF
Noise equivalent power ( $T = 25^\circ\text{C}$ , $V_R = 5$ V, $\lambda = 950$ nm)	NEP		$1.5 \times 10^{-14}$		W/ $\sqrt{\text{Hz}}$



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