
Features

- 16 element PIN array
- High QE in the visible spectrum
- High uniformity, low cross talk
- Designed for linear multi-device assembly

Description

Linear PIN array optimized for CsI:Tl scintillator luminescence detection. Two DIL18 packages with epoxy potting available. Scintillator version available on special request.

Application

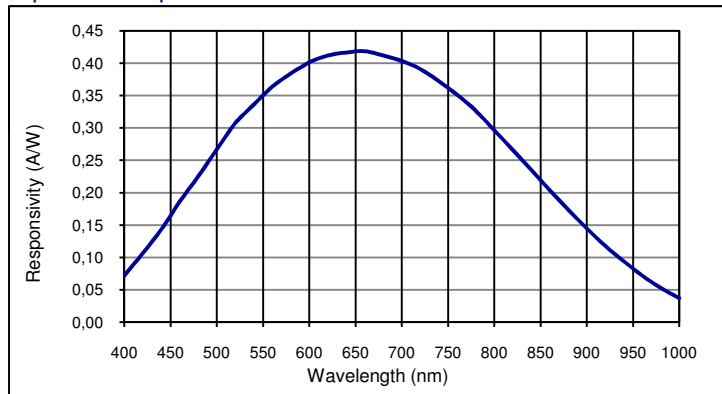
- X-ray inspection
- Photometry

RoHS

2002/95/EC


Absolute maximum ratings

Symbol	Parameter	Min	Max	Unit
T_{STG}	Storage temp	-20	80	°C
T_{OP}	Operating temp	-10	60	°C
$V_{R(OP)}$	Operating voltage	-	15	V
I_{PEAK}	Peak DC current		10	mA

Spectral response

Electro-optical characteristics @ 23 °C

Symbol	Characteristic	Test Condition	Min	Typ	Max	Unit
	No of elements			16		
	Active area			900 x 2150		μm
	Gap; Pitch			280; 1180		μm
I_D	Dark current	$U_R = 10 \text{ mV}$; per element		5	30	pA
		$U_R = 1 \text{ V}$; per element			100	pA
C	Capacitance	$U_R = 0\text{V}$; per element		250		pF
		$U_R = 5 \text{ V}$; per element		96		
	Responsivity	$U_R = 5 \text{ V}$; $\lambda = 550 \text{ nm}$		0.4		A/W
t_R	Rise time	$U_R = 5 \text{ V}$; $\lambda = 550 \text{ nm}$; $R_L = 50 \Omega$		4		ns
R_{Sh}	Shunt resistance	$U_R = 10 \text{ mV}$	2			GΩ
V_{BR}	Breakdown voltage	$I_R = 2 \mu\text{A}$	15			V
	N.E.P.	$V_R = 10 \text{ mV}$; $\lambda = 550 \text{ nm}$		3 E-15	8 E-15	W/√Hz
	Cross talk	$\lambda = 550 \text{ nm}$			1	%
	Photo current uniformity	$U_R = 5 \text{ V}$; $\lambda = 550 \text{ nm}$			10	%

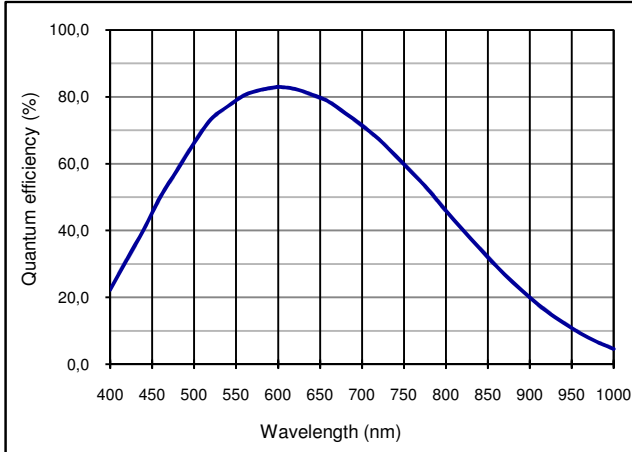
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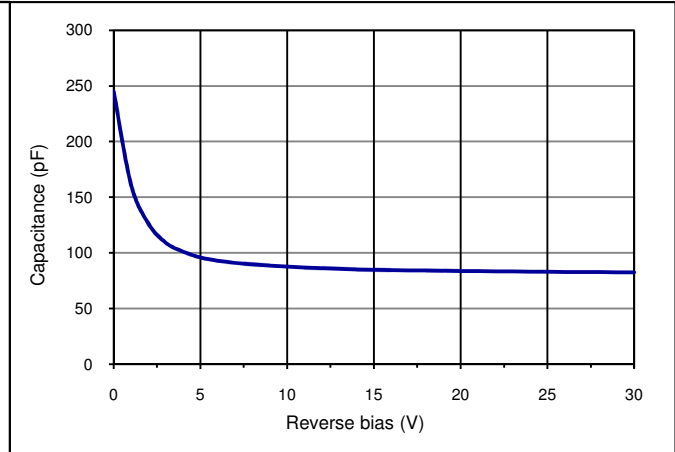
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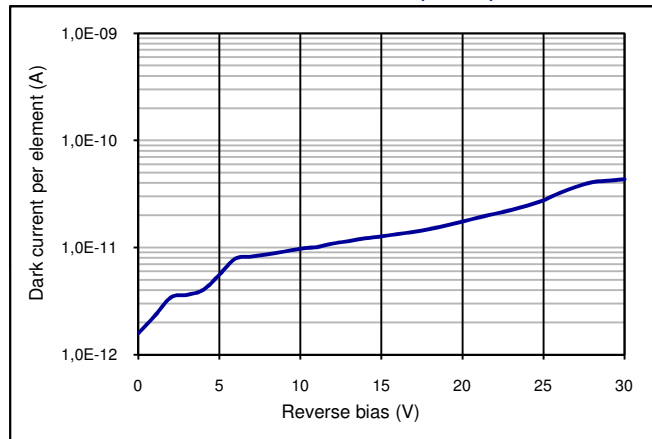
Quantum efficiency (23 °C)



Capacitance as fct of reverse bias (23 °C)



Dark current as fct of reverse bias (23 °C)



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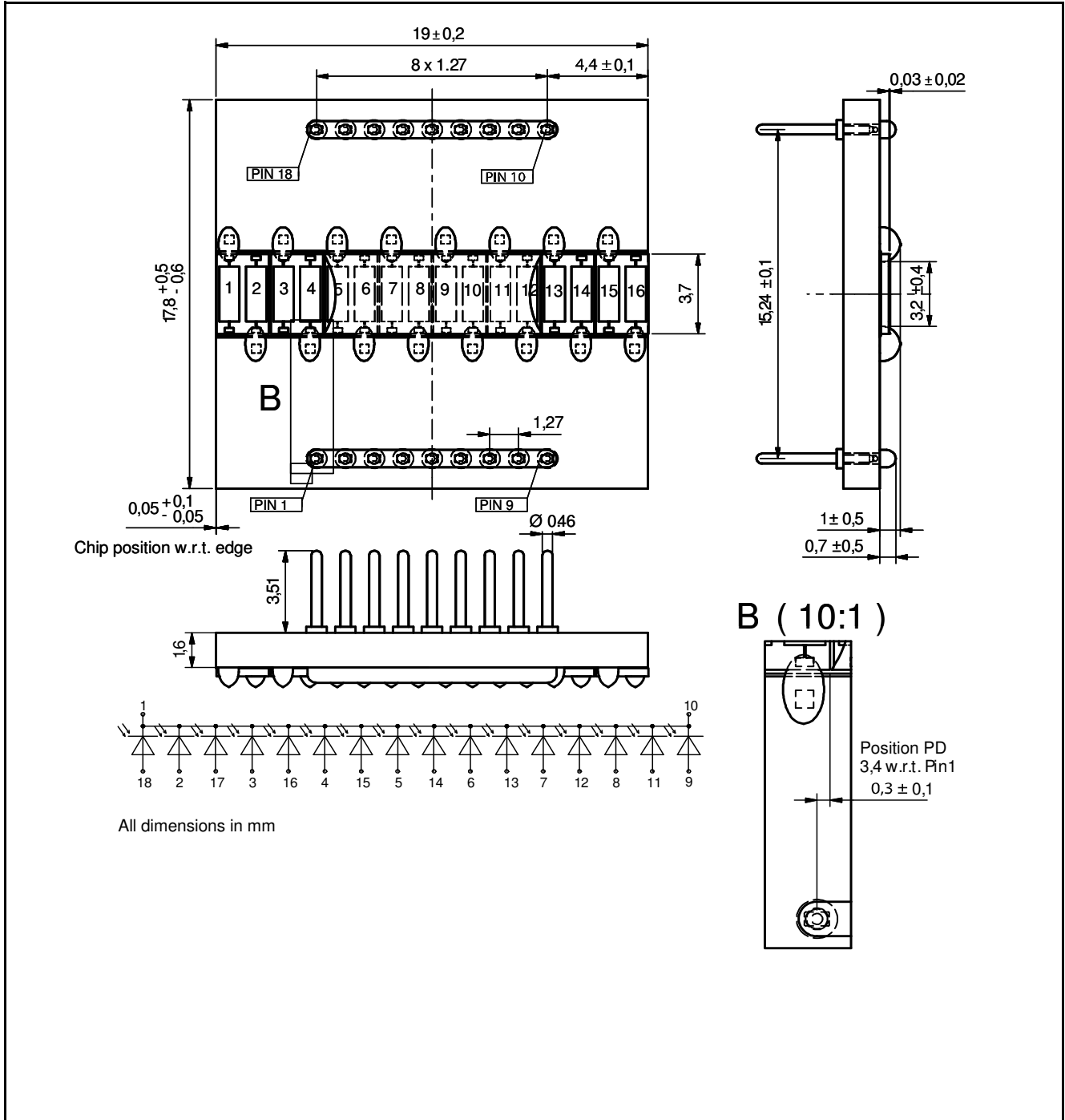
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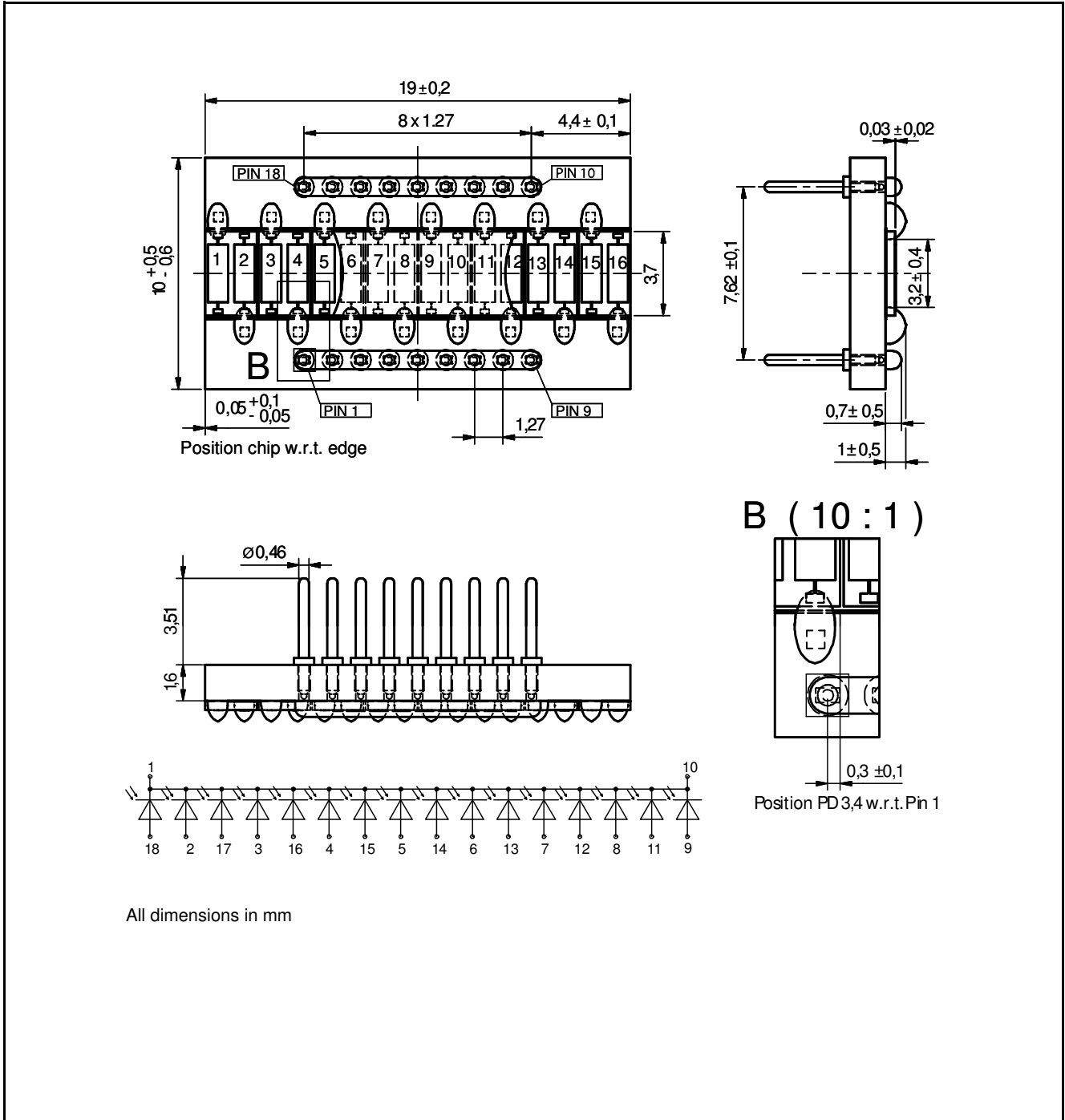


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Technical Drawing Package: DIL18 full (#50160101)



Technical Drawing Package: DIL18 slim (#50160102)



Handling: Please refer to document "Instructions for handling and processing"

Disclaimer: Due to our strive for continuous improvement, specifications are subject to change within our PCN policy according to JESD46C.

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