

### FEATURES

- Ø 0.84 mm active area
- Low dark current
- Fast response time
- High speed epitaxy
- Fully depleted at 3.5 V

### DESCRIPTION

0.55 mm<sup>2</sup> High Speed Epitaxy Photodiode with P on N construction designed for low bias voltage applications. Low cost solution packaged in a molded clear plastic flat top T1 3/4. Reflow solderable.

### APPLICATIONS

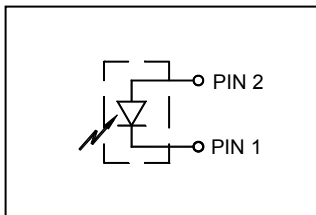
- High speed photometry
- High speed optical communications
- Pulsed light detection
- Fiber optic light monitoring



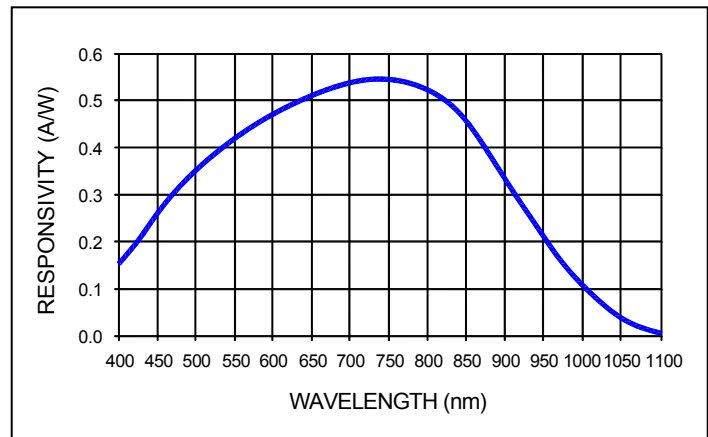
### ABSOLUTE MAXIMUM RATING

SYMBOL	PARAMETER	MIN	MAX	UNITS
T <sub>STG</sub>	Storage Temp	-40	+100	°C
T <sub>OP</sub>	Operating Temp	-20	+70	°C
V <sub>R(OP)</sub>	Reverse Operating Voltage	-	20	V
I <sub>(PEAK)</sub>	Peak DC Current	-	10	mA

### SCHEMATIC



### SPECTRAL RESPONSE

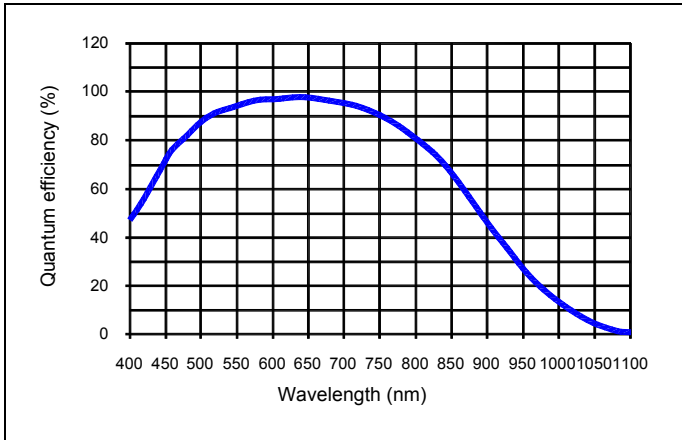


### ELECTRO-OPTICAL CHARACTERISTICS @ 23° C

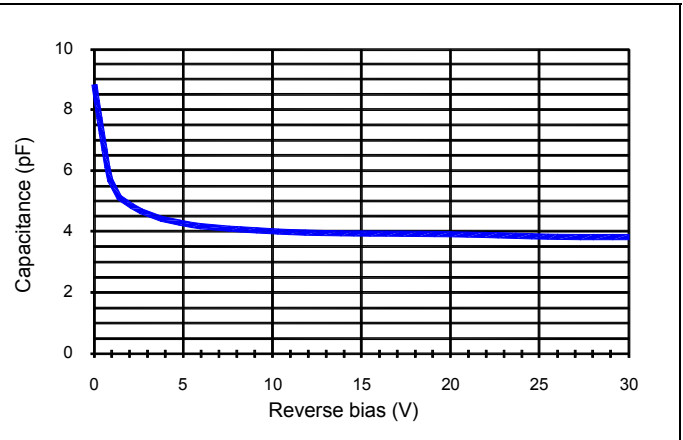
SYMBOL	CHARACTERISTIC	TEST CONDITIONS	MIN	TYP	MAX	UNITS
R <sub>SH</sub>	Shunt Resistance	V <sub>R</sub> = ±10 mV	1000	2000	---	MΩ
I <sub>D</sub>	Dark Current	V <sub>R</sub> = 3.5 V	---	0.005	0.05	nA
C	Capacitance	V <sub>R</sub> = 0 V	---	10	---	pF
		V <sub>R</sub> = 3.5 V	---	4.4	---	
	Responsivity	V <sub>R</sub> = 0 V; λ = 635 nm	---	0.49	---	A/W
		V <sub>R</sub> = 0 V; λ = 800 nm	---	0.52	---	
NEP	Noise Equivalent Power	V <sub>R</sub> = 3.5 V; λ = 850 nm; R <sub>L</sub> = 50 Ω	---	2.8 E-15	---	W/√Hz
V <sub>BR</sub>	Breakdown Voltage	I <sub>R</sub> = 2 μA	20	180	---	V
t <sub>r</sub>	Rise Time	V <sub>R</sub> = 3.5 V; λ = 850 nm; R <sub>L</sub> = 50 Ω	---	1.0	---	ns

Disclaimer: Due to our policy of continued development, specifications are subject to change without notice.

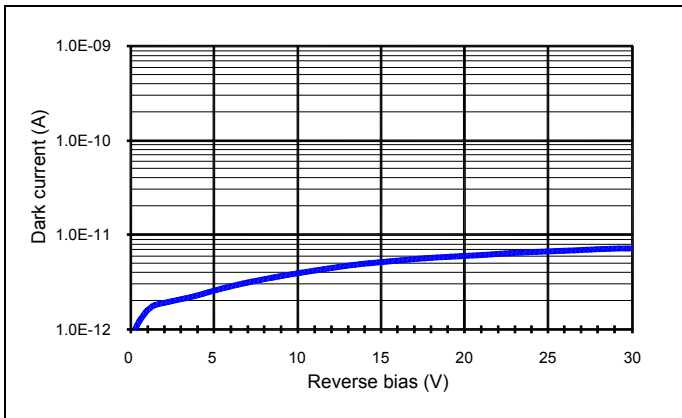
### Quantum Efficiency (23 °C)



### Capacitance vs. Reverse Bias (23 °C)



### Dark Current vs. Reverse Bias (23 °C)



### Package Dimension:

Small quantities: Foam pad, boxed (12 cm x 16.5 cm)

### Handling Precautions:

- Soldering temperature max. 260 °C for 10 seconds. The device must be protected against solder flux vapor.
- Minimum pin length is 2 mm.
- For ESD protection standard precautionary measures are sufficient.
- For further questions please refer to document "Instructions for handling and processing".

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