

Sensitivity Wavelength Range: 350nm ~ 1100nm

The MT03-072, is ideally suited for nulling or beam centering applications.

Custom packaging options for this die are also available.

FEATURES

- > Peak Sensitivity: 950nm
- > TO-8, 6 pin Hermetic Package
- > Active Area: 8.0mm Diameter
- > 50mm² Active Area w/200um Gaps

APPLICATIONS

- > Optical Tweezers
- > Beam Centering
- > Beam Nulling
- > Position Centering
- > Atomic Force Microscopes (AFM)



Absolute Maximum Ratings

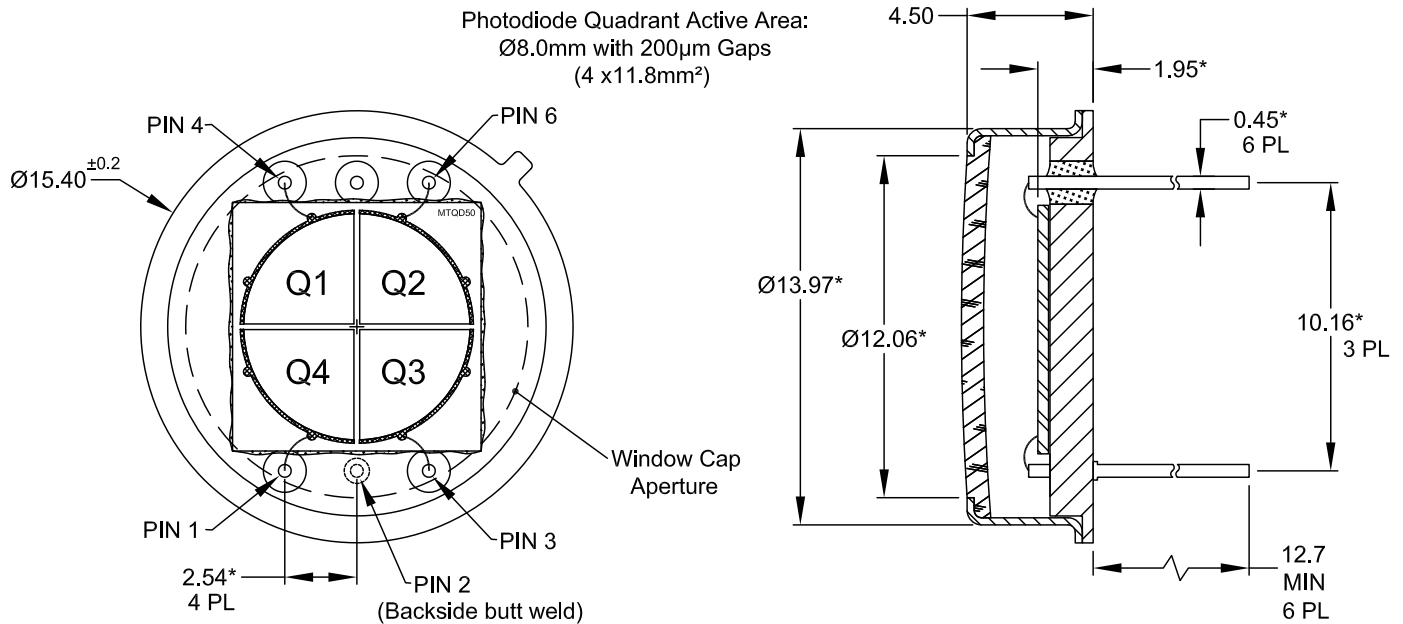
ITEMS	SYMBOL	RATINGS	UNIT
Active Area	Φ	8.0	mm
Operating Temperature Range	T _{opr}	-40 to +85	°C
Storage Temperature Range	T _{stg}	-40 to +125	°C
Lead Soldering Temperature*1	T _{ls}	260	°C

*1: Time 5 Sec max, Position: Up to 3mm from the body.

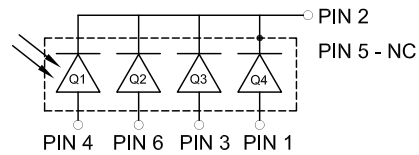
Electrical & Optical Characteristics (T_a = 22°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown Voltage	V _{BR}	I _R =10uA	50	--	--	V
Sensitivity Range	λ	V _R =0V	350	--	1100	nm
Dark Current	I _d	V _R =12V	--	3	30	nA
NEP @ 880nm		V _R =0V; R _L =50Ω	--	2x10 ⁻¹⁴	--	W/Hz ^{1/2}
Capacitance	C _j	V _R =0V; 1MHz	--	330	--	pF
Capacitance	C _j	V _R =12V; 1MHz	--	80	--	pF
Responsivity	R	λ=436nm	.18	.21	--	A/W
Responsivity	R	λ=880nm	.48	.53	--	A/W
Forward Voltage	V _f	I _F =2mA	--	--	0.8	V
Shunt Resistance	R _{sh}	V _R =+/-10mV	10	300	--	MΩ
Crosstalk	C _t	V _R =0V; λ=880nm	--	2	5	%

Package Dimensions



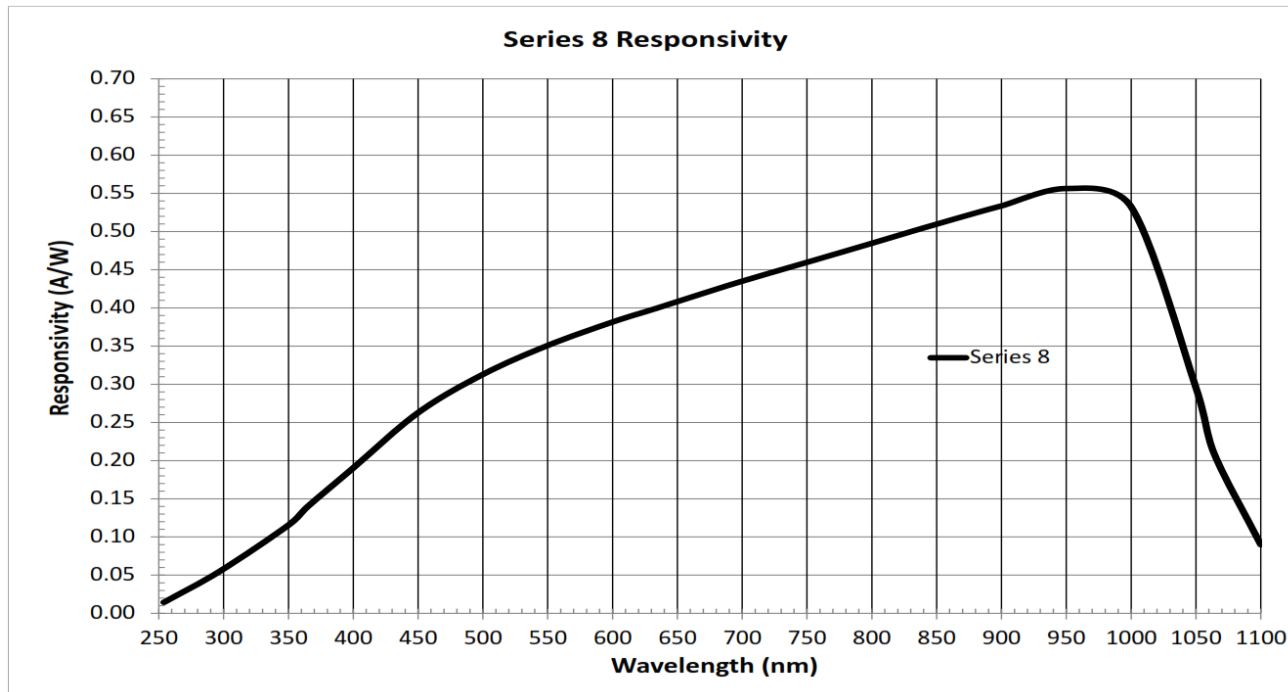
Window Cap removed to show internal construction



Notes:

1. Die attach Quad PD chip to center of header base within ±0.15mm.
2. Dimensions with an asterisk (*) are for reference only.

Spectral Responsivity



The information contained herein is subject to change without notice.

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