

Sensitivity Wavelength Range: 350nm ~ 1100nm

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

Other packaging options for this die include an isolated cathode version and/or a sapphire window cap 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

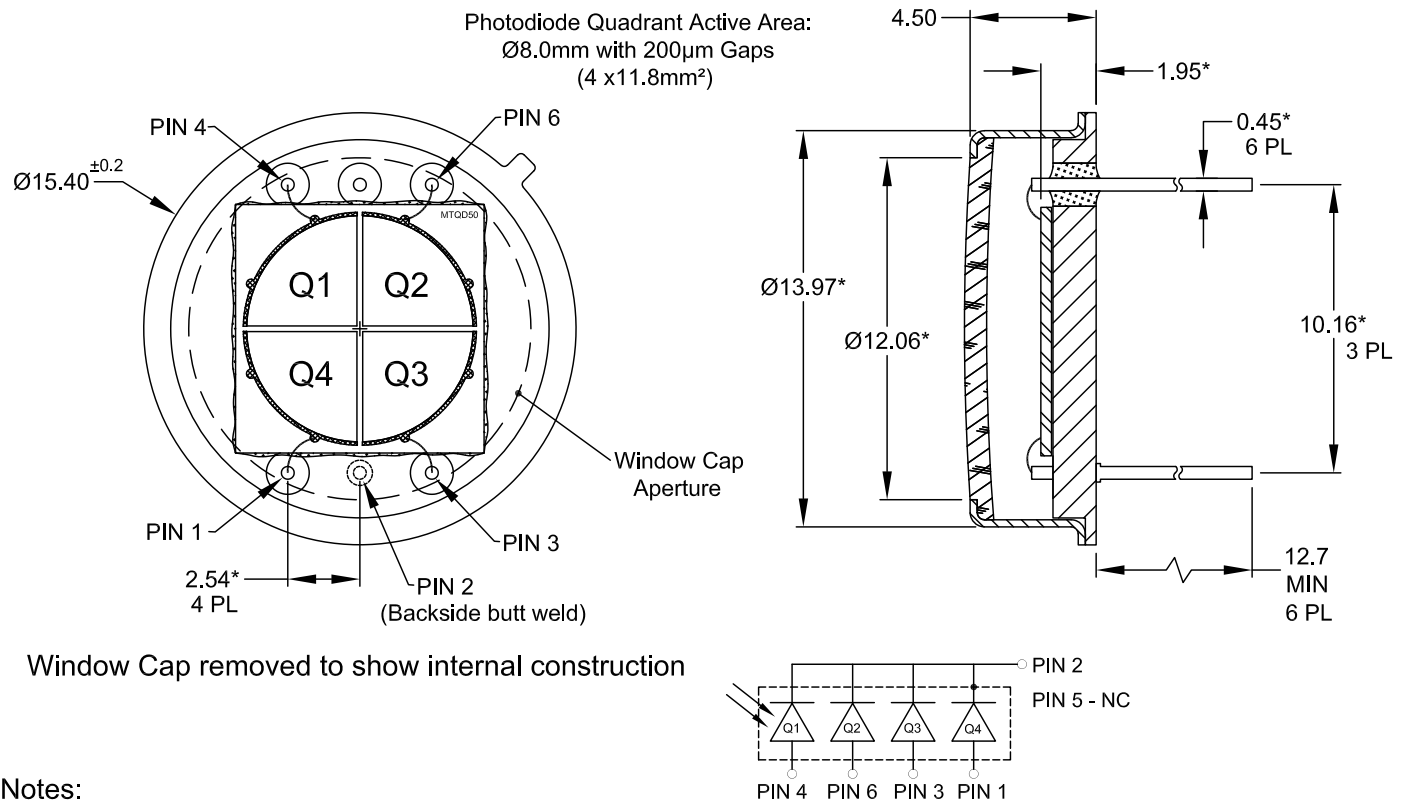
ITEMS	SYMBOL	RATINGS	UNIT
Operating Temperature Range	Topr	-40 to +85	°C
Storage Temperature Range	Tstg	-40 to +125	°C
Lead Soldering Temperature*1	Tls	260	°C

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

Electrical & Optical Characteristics (Per Quadrant; Ta = 22°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown Voltage	V _{BR}	IR=10uA	50	--	--	V
Sensitivity Range	λ	VR=0V	350	--	1100	nm
Dark Current	I _d	VR=12V	--	3	30	nA
NEP @ 880nm		VR=0V; RL=50Ω	--	2x10 ⁻¹⁴	--	W/Hz ^{1/2}
Capacitance	C _j	VR=0V; 1MHz	--	330	--	pF
Capacitance	C _j	VR=12V; 1MHz	--	80	--	pF
Responsivity	R	λ=436nm	.18	.21	--	A/W
Responsivity	R	λ=880nm	.48	.53	--	A/W
Forward Voltage	V _f	IF=2mA	--	--	0.8	V
Shunt Resistance	R _{sh}	VR=+/-10mV	10	300	--	MΩ
Crosstalk	C _t	VR=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 $\pm 0.15\text{mm}$.
2. Dimensions with an asterisk (*) are for reference only.

Spectral Responsivity

