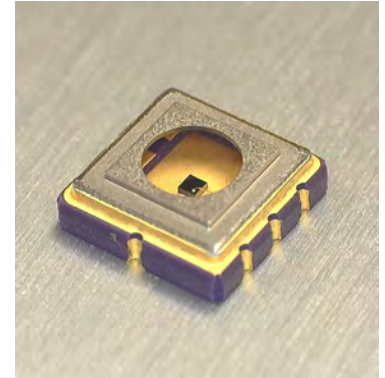


Sensitivity Wavelength Range: 220nm ~ 358nm

The MTSM1057SMF2-046 is a high sensitivity and high reliability UV detector, it is ideally suited for applications requiring the detection of deep UV light. Custom packaging options this die are also available.

FEATURES

- > Hermetically Sealed Package
- > 5mm x 5mm Seam Welded Surface Mount Package
- > High Sensitivity
- > Spectral Range: 220nm - 358nm



Absolute Maximum Ratings (Ta=25°C)

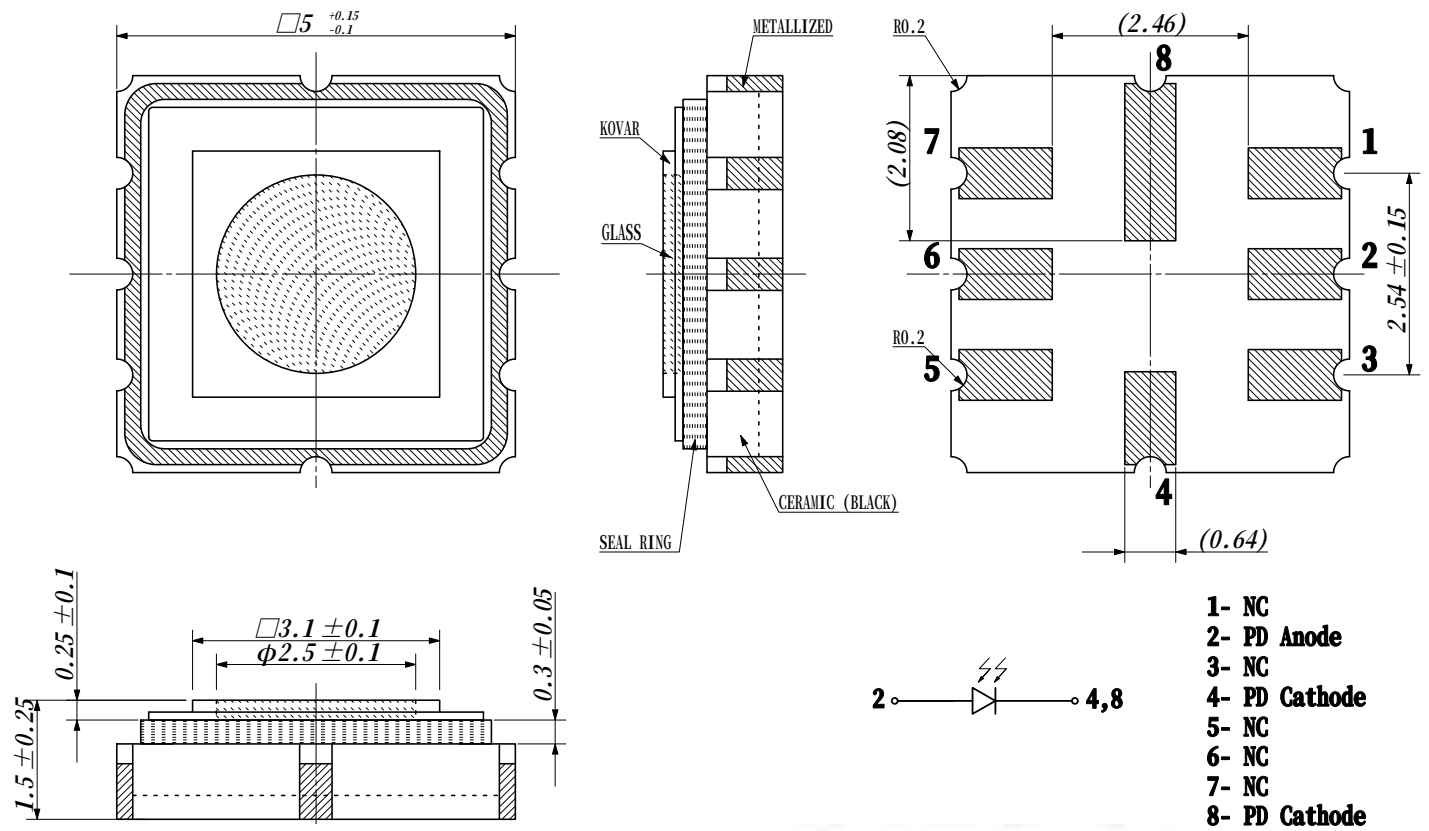
ITEMS	SYMBOL	RATINGS	UNIT
Operating Temperature Range	Topr	-55 to +170	°C
Storage Temperature Range	Tstg	-55 to +170	°C
Reverse Breakdown Voltage	VR	30	V

Note: Also available on PCB - Starboard MTSM1057SMF2-046S (See Page 3)

Electrical & Optical Characteristics (Ta = 25°C)

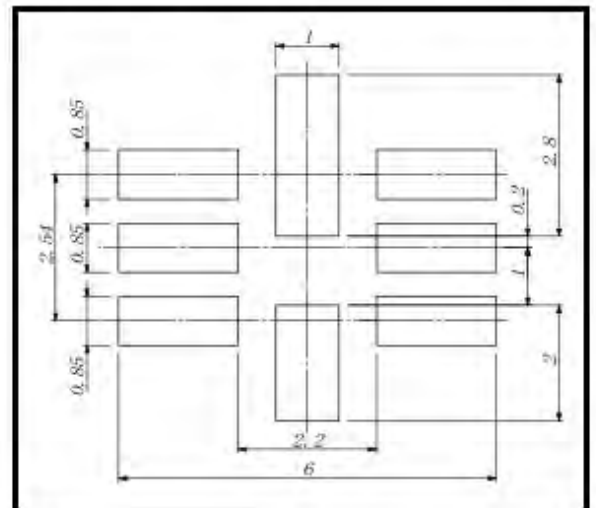
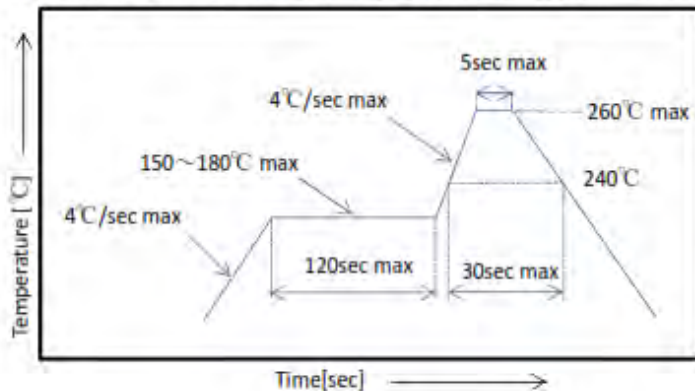
ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Radiant Sensitivity Area	Φ		0.26 mm x 0.26 mm, 0.06 mm ²			
Responsivity	R	$\lambda=280\text{nm}$	--	0.13	--	A/W
Dark Current	ID	VR=1V	--	0.5	--	fA
Sensitivity Range	λ	VR=0V	220	--	358	nm
Peak Sensing Wavelength	λ_p	VR=10 mV	--	280	--	nm
Photo Sense Current	Io	10 mW/cm ² @peak	--	0.8	--	uA
Serial Capacitance	CS	V=0V, 1MHz	--	1.5	--	pF

Package Dimensions



Recommended Soldering Pattern [mm]

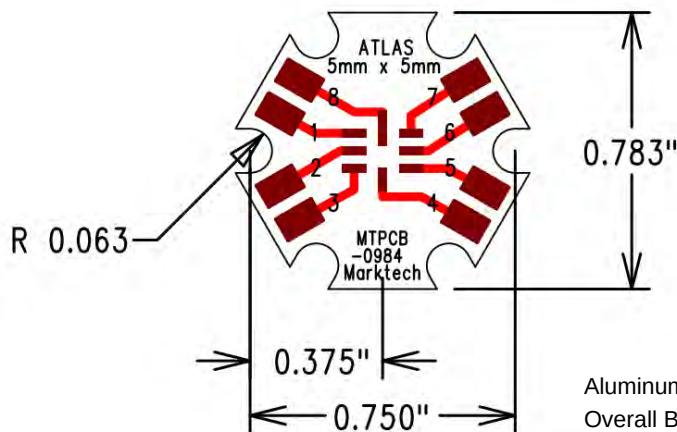
Reflow Soldering Temperature-Profile [Pb free Soldering] (Recommend condition)



The information contained herein is subject to change without notice.

2024-07-24

Starboard Dimensions



Pin 1	NC
Pin 2	Anode
Pin 3	NC
Pin 4	Cathode
Pin 5	NC
Pin 6	NC
Pin 7	NC
Pin 8	Cathode



Aluminum Core Board 0.040" (1.02mm) Thickness
Overall Board Dimensions: +/- 0.010" (0.254mm)



We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

The information contained herein is subject to change without notice.

2024-07-24

Spectral Responsivity

