Preliminary



Product No: MTSM1346SMF1-100

Sensitivity Wavelength Range: 600nm ~ 1750nm

The 1346 series from Marktech, a high sensitivity and high reliability product series, is ideally suited for Optical Communication devices. Custom packaging options for this die are also available.

FEATURES

- > High Speed Response (Max: 2Gbps)
- > Seam Welded Surface Mount Package
- > Active Area of 1.0mm / High Sensitivity
- > Spectral Range: 600nm 1750nm
- > Hermetically Sealed

APPLICATIONS

- > High Speed Optical Communications
- > Industrial Controls
- > Optical Switches
- > LIDAR
- > Medical



Absolute Maximum Ratings (Ta=25°C)

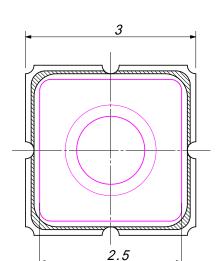
ITEMS	SYMBOL	RATINGS	UNIT
Active Area	Φ	1.0	mm
Operating Temperature Range	Topr	-40 to +85	°C
Storage Temperature Range	Tstg	-40 to +125	°C

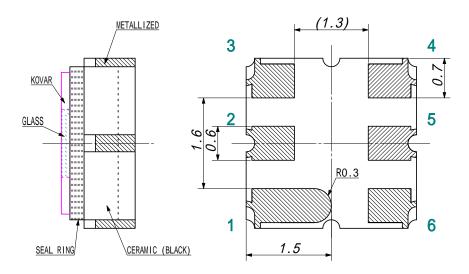
Note: Also available on PCB - Starboard MTSM1346SMF1-100S (See Page 3)

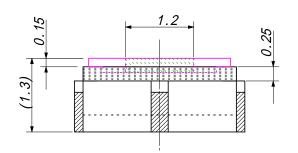
Electrical & Optical Characteristics (Ta = 25°C)

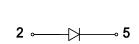
ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown Voltage	VR	IR=10uA			1	V
Sensitivity Range	λ	VR=0V	600		1750	nm
Dark Current	ID	VR=0V		0.03		nA
Dark Current	ID	VR=1V		57		nA
Junction Capacitance	C	VR=0V		70		рF
Junction Capacitance	C	VR=1V		55		pF
Responsivity	R	λ=1650nm		0.74		A/W
Quantum Efficiency	QE	λ=1660nm		55		%
Shunt Resistance	RSH	VR=10mV		5.5		ΜΩ
Light Current @λ=1300nm	IL	If=10mA		100		μΑ
Light Current @λ=1300nm	IL	If=20mA		200		μΑ







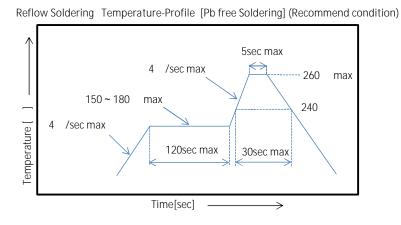


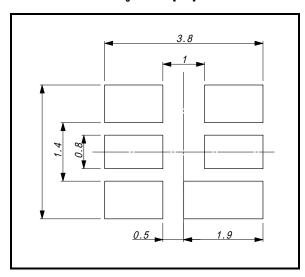


- 1- Case
- 2- Anode
- 3- Case
- 4- Case
- 5- Cathode
- 6- Case

Unit: mm, Tolerance: ±0.2

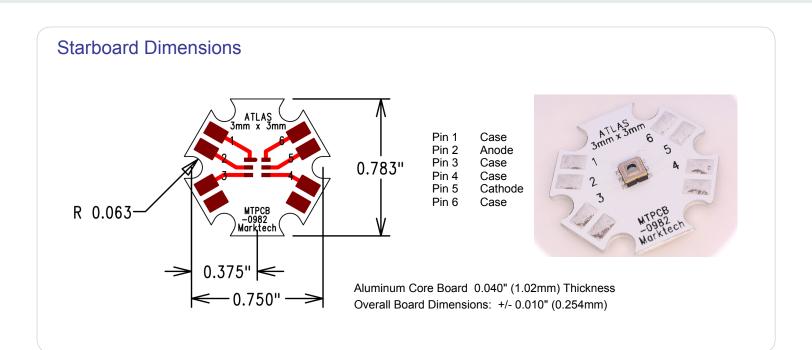
Recommended Soldering Pattern [mm]





The information contained herein is subject to change without notice.



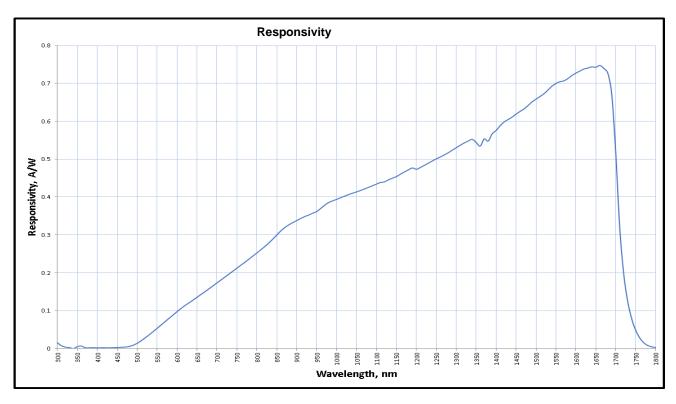


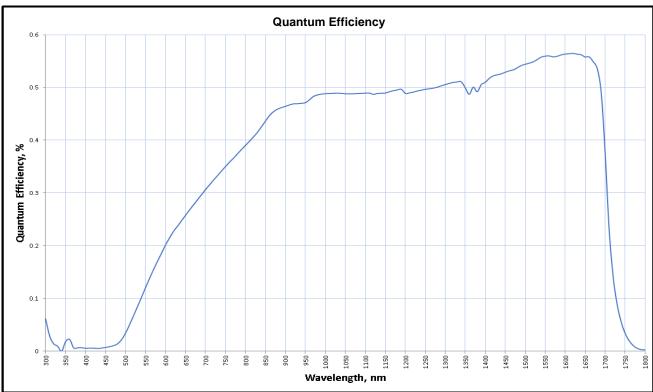


We reserve the right to make changes to improve technical design and may do so without further notice. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer.

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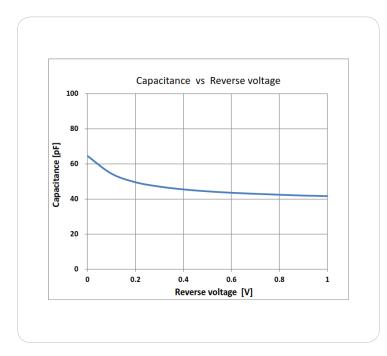


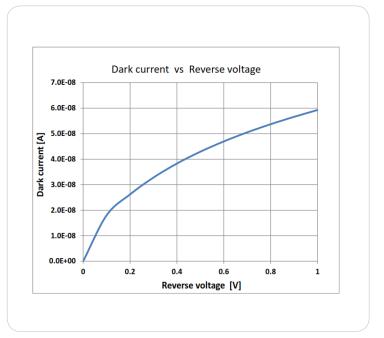


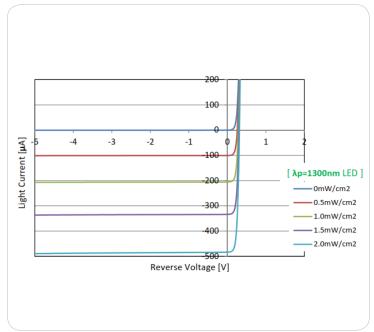


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