Preliminary

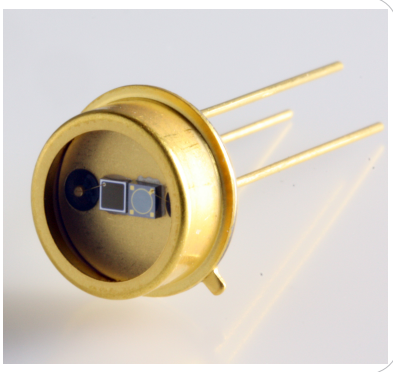
Marktech Optoelectronics

High Speed InGaAs + Si PIN Photodiode

Product No: **MTPD2601SIW-100**

Sensitivity Wavelength Range: InGaAs 800-2600nm / SI 250-1100nm

The MTPD2601SIW-100 from Marktech, a high sensitivity and high reliability product series, is ideally suited for applications requiring a wide spectral bandwidth. Custom packaging for this is also available.



FEATURES

> High Speed Response
> TO-39 Hermetically Sealed Package
> Active Area of 1.0mm Φ / High Sensitivity
> Spectral Range Si: 250-1100 InGaAs: 800-2600nm

APPLICATIONS

> High Speed Optical Communications
> Industrial Controls
> Gas/Water Analysis
> 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

InGaAs Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown Voltage	VR	IR=100uA	--	--	1	V
Sensitivity Range	λ	VR=0V	800	--	2600	nm
Dark Current	ID	VR=0V	--	80	--	nA
Dark Current	ID	VR=1V	--	100	--	uA
Capacitance	C	VR=0V	--	3100	--	pF
Capacitance	C	VR=1V	--	500	--	pF
Responsivity	R	λ=2400nm	--	1.24	--	A/W
Shunt Resistance	RS	VR=10mV	--	0.5	--	kΩ
Quantum Efficiency	QE	λ=1840nm	--	72	--	%

2023-01-30

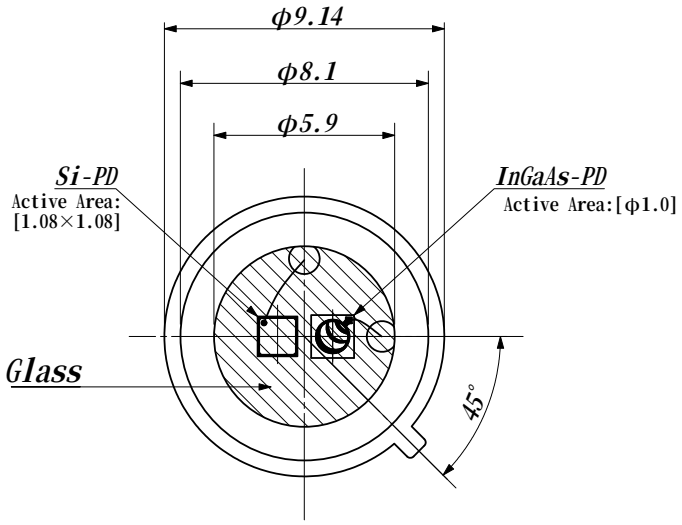
Si Electrical & Optical Characteristics (Ta = 25°C)

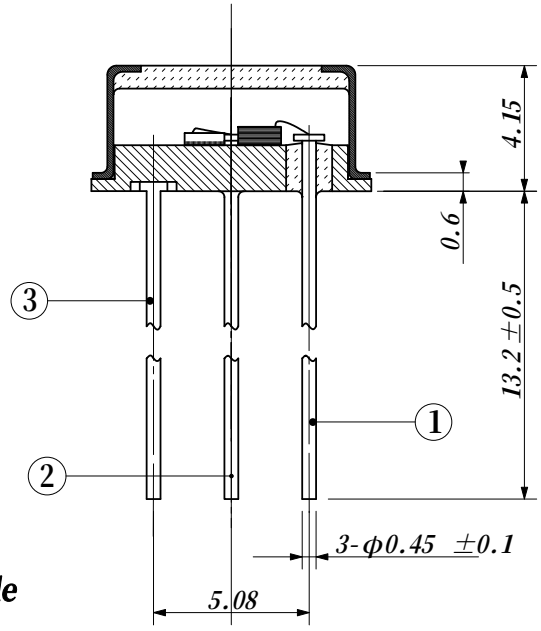
ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown Voltage	VR	IR=10uA	50	--	--	V
Sensitivity Range	λ		250	--	1100	nm
Peak Sensitivity	λp		--	950	--	nm
Dark Current	ID	VR=5V	--	--	10	nA
Capacitance	C	@1MHz, VR=0V	--	20	--	pF
Capacitance	C	@1MHz, VR=5V	--	6	8	pF
Responsivity	R	VR=0V, λ=365nm	--	0.22	--	A/W
Responsivity	R	VR=0V, λ=633nm	--	0.40	--	A/W
Shunt Resistance	RS	VR=10mV	500	800	--	MΩ
Response Time @ 635nm	TR	RL=50Ω, VR=5V	--	20	--	ns

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TOLL FREE: 1-800-984-5337 • **PHONE:** 518-956-2980 • **FAX:** 518-785-4725 • **EMAIL:** info@marktechopto.com

Package Dimensions



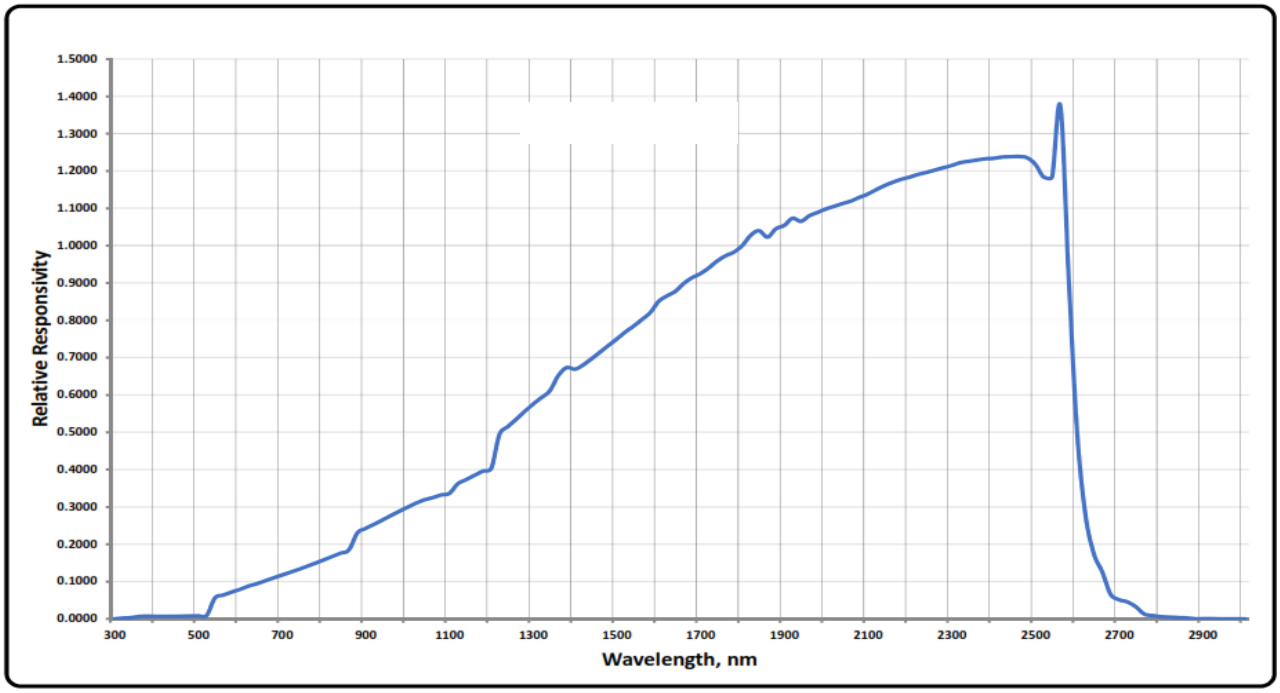


①InGaAs PD Anode
②Si PD Anode
③Cathode com(Case)

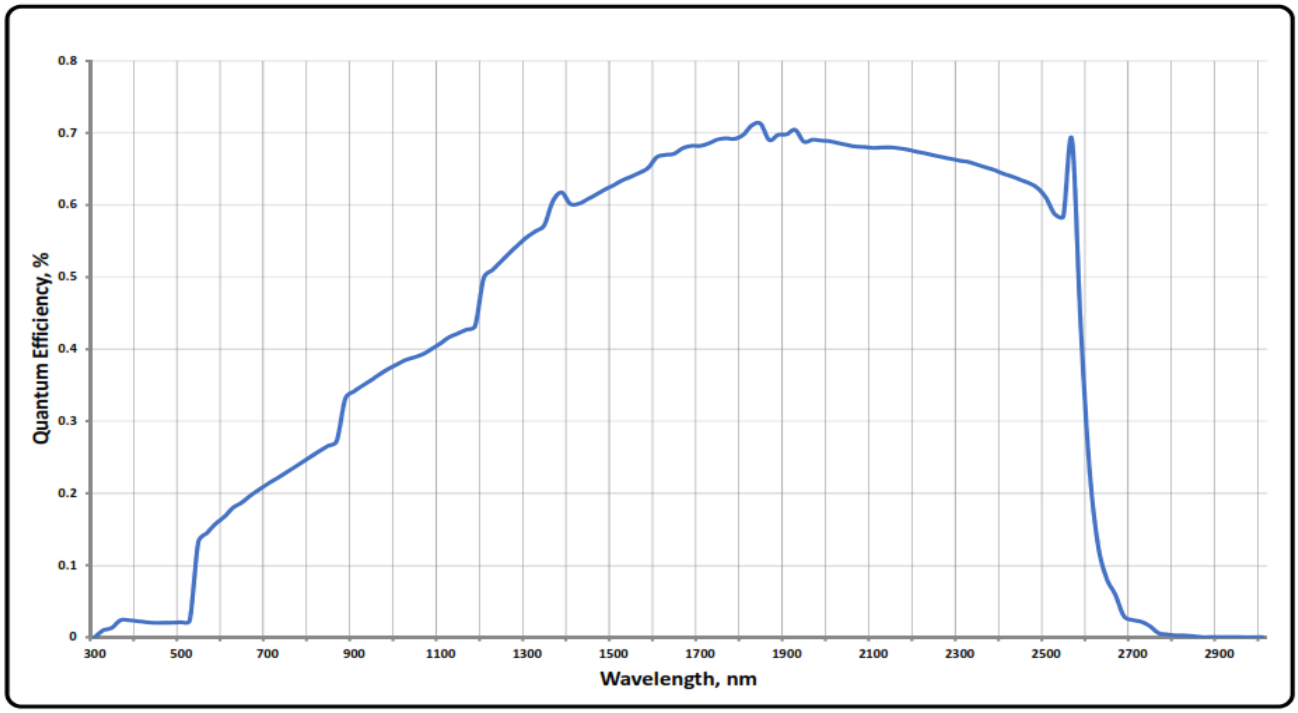
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InGaAs Spectral Responsivity



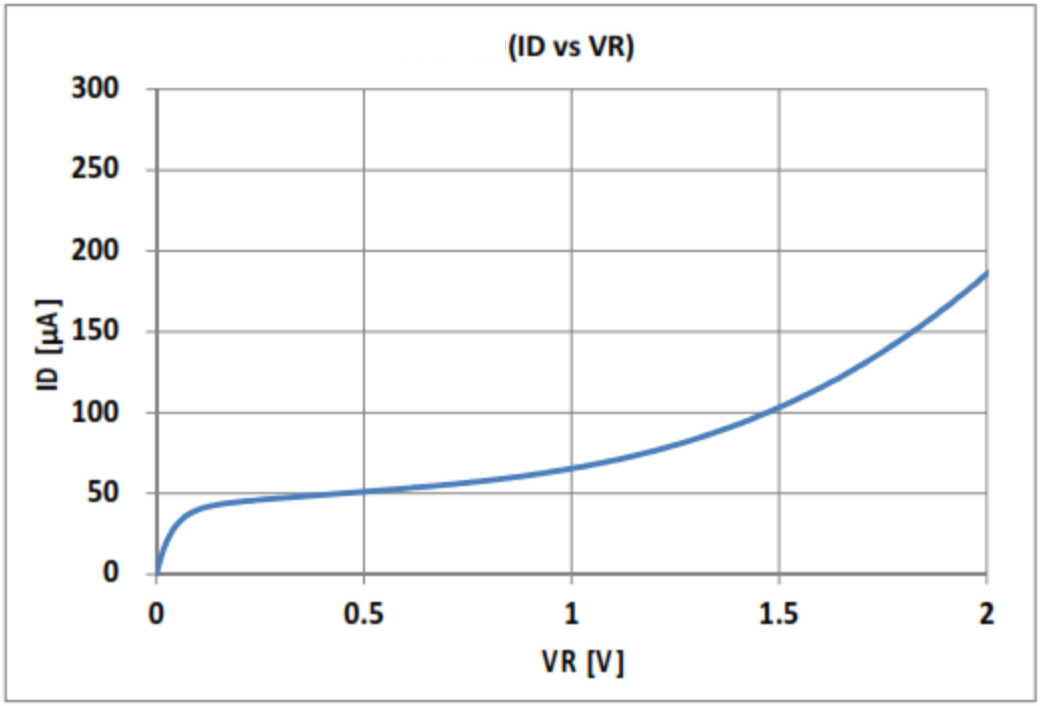
InGaAs Quantum Efficiency



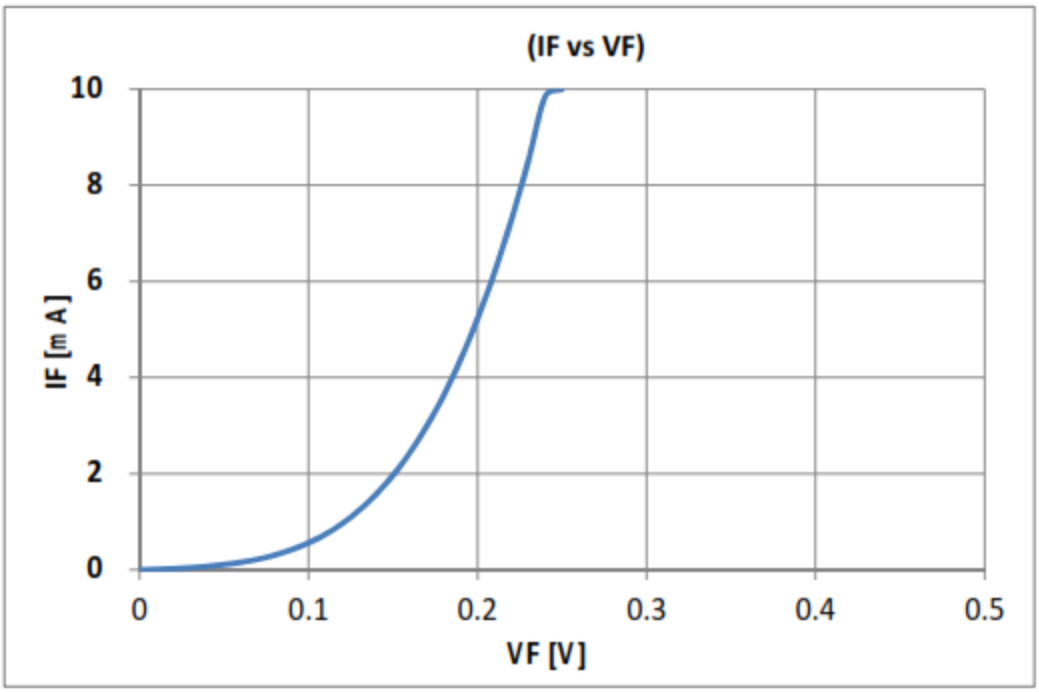
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InGaAs Dark Current vs Reverse Voltage



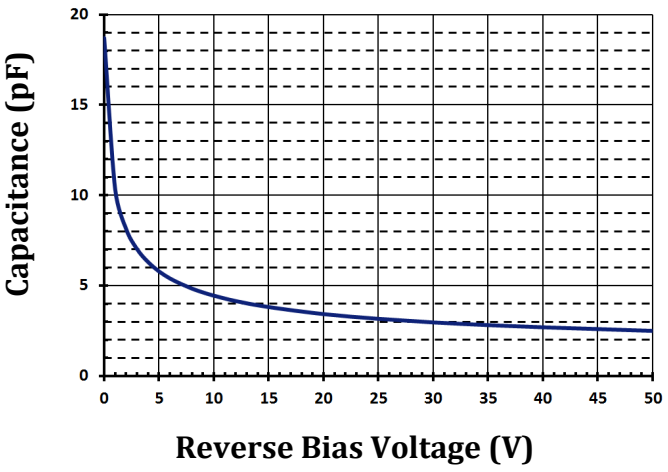
InGaAs Forward Current vs Forward Voltage



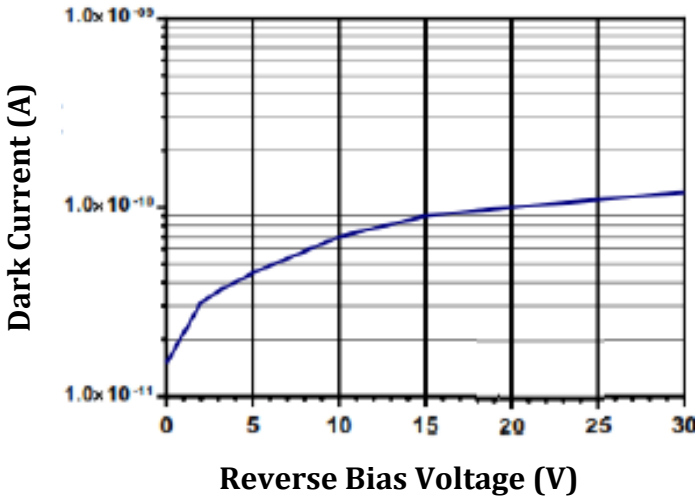
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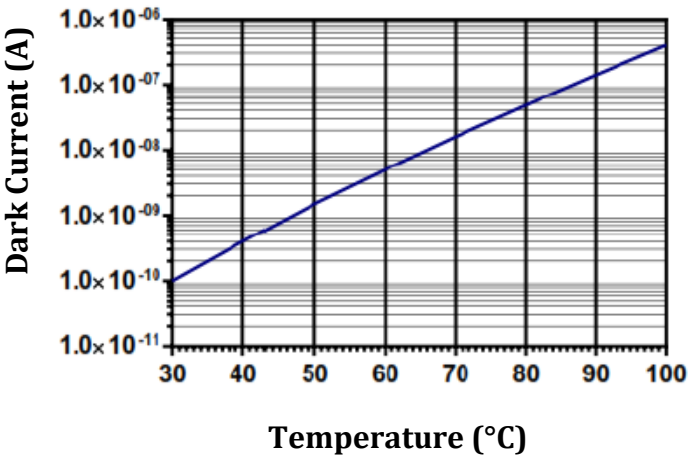
Si Capacitance vs Reverse Bias



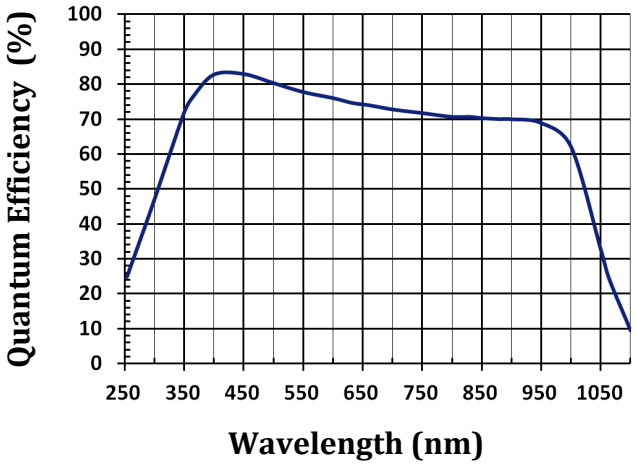
Si Dark Current vs Reverse Bias (23°C)



Si Dark Current vs Temperature (Vr=10V)

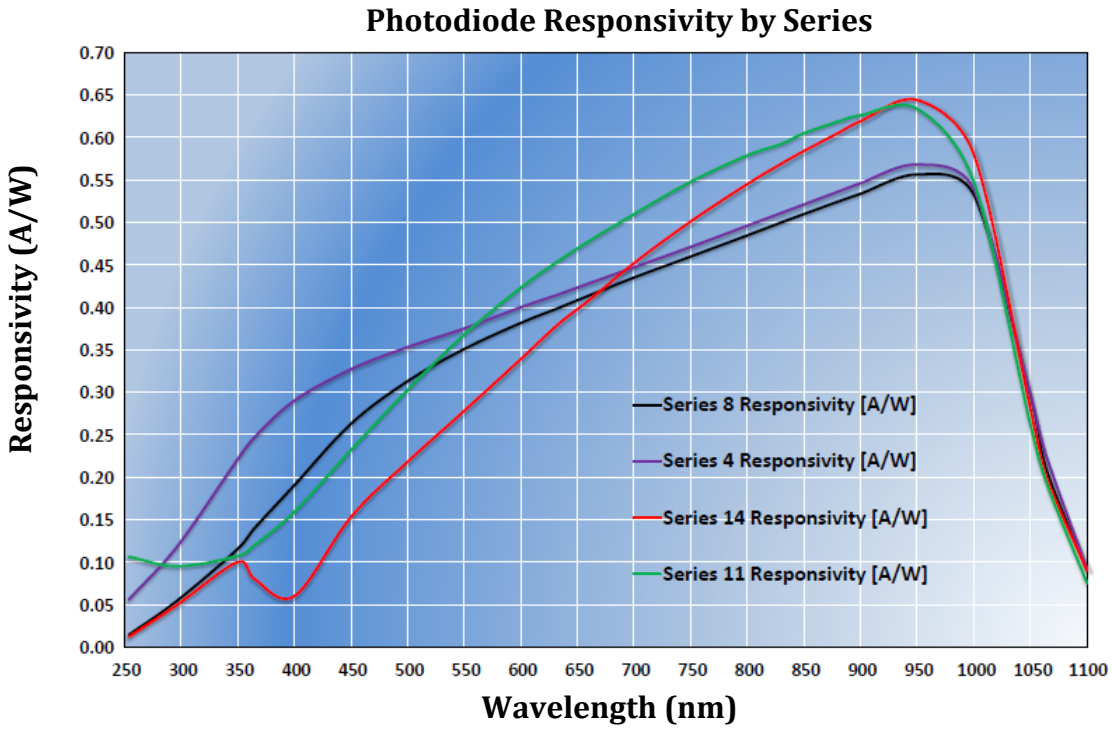


Si Quantum Efficiency (23°C)



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Si Series 4 Spectral Responsivity



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Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

Marktech Optoelectronics:

MTD3910W MTE8560P-C MTPD1346D-010 MTRS0012C MT5470E-OR MTE4110C5 MTE6114C2 MTE8800N1 MTSM6414SMR2S MTE4600P-C MTPS3085WC1 MTE8800W MT2118-G-A MTAPD-06-001 MTD6000PT-T MTE325H21-UV MTE7063NK2-UR MTD3910G-F3 MTE340F11-UV MTE340F13-UV MTPS3085SMR1-IR MTE1300N MTPD3001D5-030 MTE8008N3 MTRS7010C MTSM5416SMR2S MTE8600N2 MTE4110D4 MTAPD-06-009 MTE8600MC