

Enhanced Sensitivity Wavelengths: 250nm-1750nm

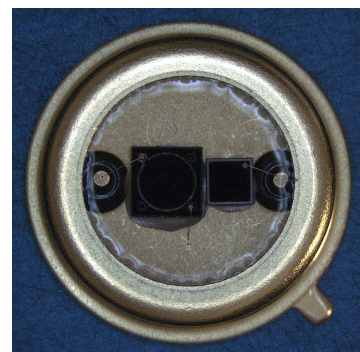
The MT03-041 is a Multi Spectral Photodiode in a hermetic TO-39 metal can package. It is specifically designed for use with wavelengths ranging from 250nm Ultraviolet (UV) to 1750nm Short Wave Infrared (SWIR).

FEATURES

- > Ultra low noise
- > High Shunt Resistance
- > Wide Dynamic Range
- > 365nm Enhanced Silicon/1300nm InGaAs SWIR

APPLICATIONS

- > Medical
- > Industrial
- > Communications
- > Security



Absolute Maximum Ratings



ITEMS	SYMBOL	RATINGS	UNIT
Reverse Voltage	Vr	50	V
Operating Temperature Range	Topr	-40 ~ +100	°C
Storage Temperature Range	Tstg	-55 ~ +125	°C
Lead Soldering Temperature *1	Tls	260	°C

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

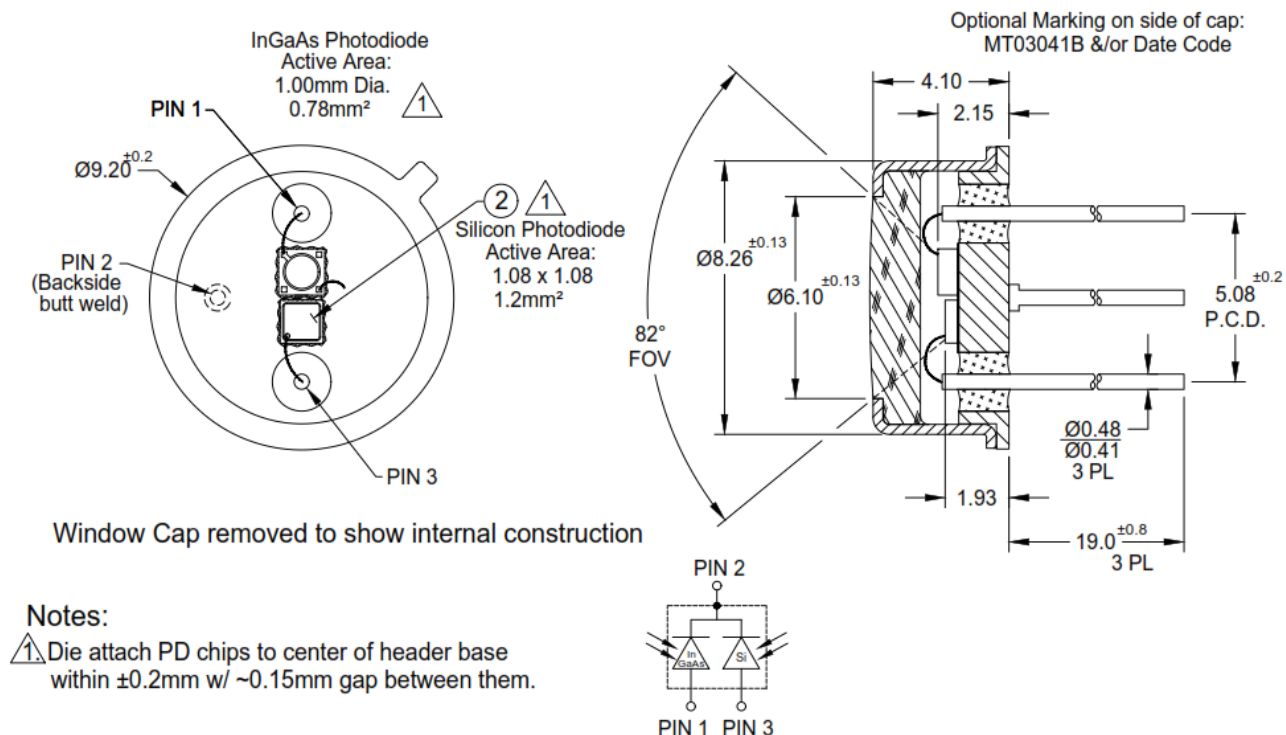
Electrical & Optical Characteristics (1.2mm Silicon-PD) Ta = 23°C

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Dark Current	Id	Vr=1V	--	--	1.0	nA
Forward Voltage	Vf	If=2mA	--	--	0.8	V
Breakdown Voltage	Vb	Ir=10uA	3	--	--	V
Spectral Sensivity Range	λ		250	--	1100	nm
Peak Sensivity Wavelength	λp		--	950	--	nm
Responsivity	R	Vr=0V, λ=365nm	--	0.22	--	A/W
Responsivity	R	Vr=0V, λ=633nm	--	0.40	--	A/W
Response Time	Tr	Vr=1V, RI=50Ω	--	100	--	ns
Junction Capacitance	Cj	Vr=0V	--	20	--	pF

Electrical & Optical Characteristics (1.0mm InGaAs-PD) Ta = 25°C

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Dark Current	Id	Vr=1V	--	--	2.0	uA
Forward Voltage	Vf	If=2mA	--	--	0.8	V
Breakdown Voltage	Vb	Ir=10uA	--	--	3	V
Spectral Sensivity Range	λ		600	--	1750	nm
Peak Sensivity Wavelength	λ_p		--	1590	--	nm
Responsivity	R	Vr=0V, $\lambda=1330\text{nm}$	--	0.60	--	A/W
Responsivity	R	Vr=0V, $\lambda=1550\text{nm}$	--	0.75	--	A/W
Response Time	Tr,Tf	VR=1V, RI=50 Ω	--	10	--	ns
Junction Capacitance	Cj	Vr=0V	--	75	--	pF
Shunt Resistance	Rsh	Vr=10mV	--	2	--	M Ω

Package Dimensions



Responsivity

