

Sensitivity Wavelength Range: 900nm ~ 17 00nm

The 1309 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: 1Gbps)
- > 3mm Plastic Package
- > Active Area of 0.3mm / High Sensitivity
- > Spectral Range 900nm - 17 00nm

APPLICATIONS

- > High Speed Optical Communications
- > Optical LAN
- > Optical Switches
- > Ethernet Fiber Channel



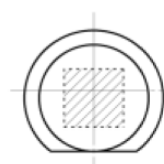
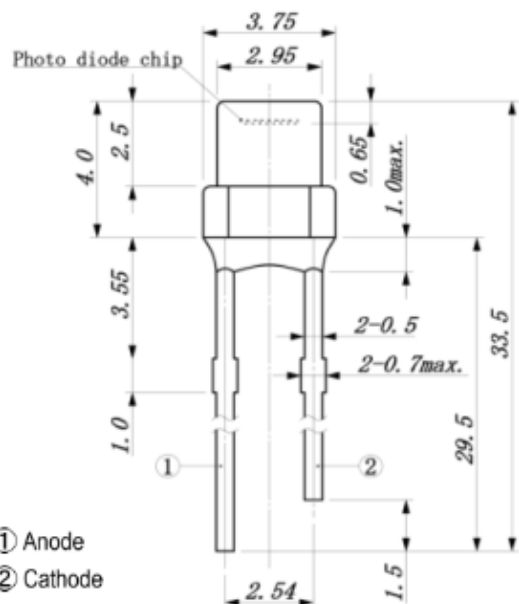
Absolute Maximum Ratings (Ta=25°C)

ITEMS	SYMBOL	RATINGS	UNIT
Active Area	Φ	0.3	mm
Operating Temperature Range	Topr	-40 ~ +85	°C
Storage Temperature Range	Tstg	-40 ~ +125	°C

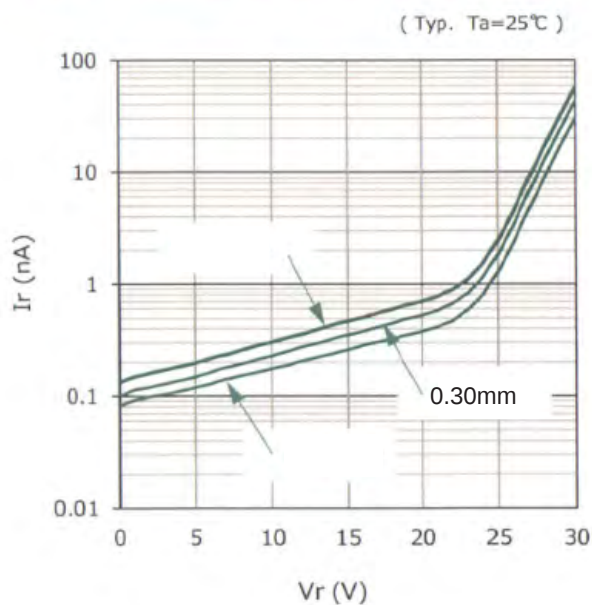
Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Breakdown Voltage	VR	IR=10uA	--	--	5	V
Sensitivity Range	λ	VR=0V	900	--	17 00	nm
Peak Sensitivity	λ_p		--	1550	--	nm
Dark Current	ID		--	--	0.15	nA
Junction Capacitance	Cj	VR=0V	--	15	--	pF
Photo Current at 1300nm *1	IL	*2	--	30	--	uA
Responsivity	R	$\lambda=1550\text{nm}$	--	1	--	A/W

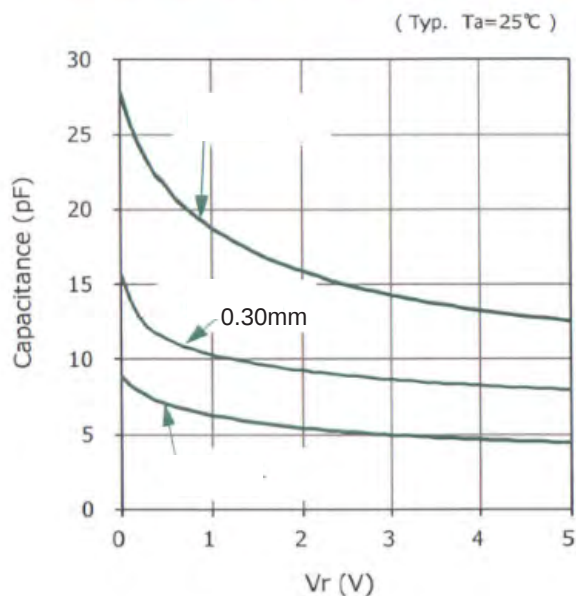
*1: As mounted on TO-46 gold header without resin coating. *2, VR=5V, Ee=1mW/cm²



Dark Current vs Reverse Voltage

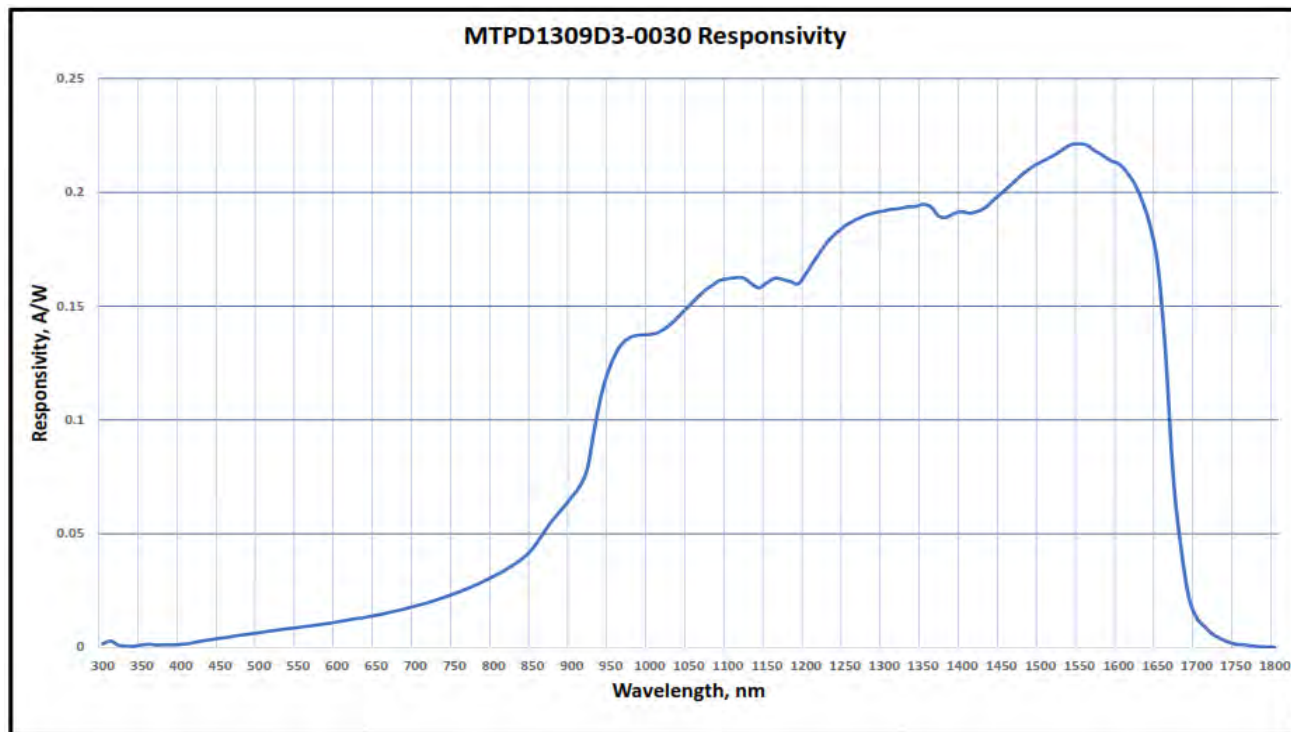


Capacitance vs Reverse Voltage



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