

# Ultra High Speed Photo Diode

## MTD5010M Applications -

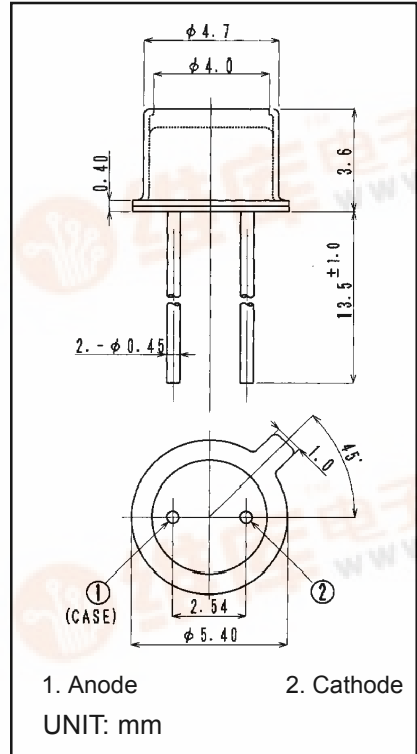
- Optical Switches
- Edge Sensing
- Smoke Detectors
- Fiber Optical Communications

## Features -

- Ultra High Speed
- Low Dark current
- Wide Angular Response
- High Reliability in Demanding Environments (Metal Can Package)

## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	$V_R$	30	V
Power Dissipation	$P_D$	100	mW
Operating Temperature	$T_{opr}$	-30~100	°C
Storage Temperature	$T_{stg}$	-40~125	°C
High Frequency Response	fc	up to 100	MHz



## OPTO-ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Open Circuit Voltage	Voc	L = 1000Lux*	—	0.35	—	V
Light Current	IL	VR = 10V L = 1000Lux*	—	30	—	μA
Dark Current	ID	VR = 10V	—	—	5	nA
Spectral Sensivity	λ	—	400~1000			nm
Peak Sensivity Wavelength	λp	—	—	850	—	nm
Responsivity	Rt	VR = 0V, λ = 450nm	—	.15	—	A/W
	Rt	VR = 0V, λ = 900nm	—	.55	—	A/W
Angular Response	θ	—	—	±55	—	deg
Junction Capacitance	Cj	1 MHz V=0V	—	15	—	pF

\*Color Temperature = 2870° K Standard Tungsten Lamp



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## MTD5010M Graphs -

