



## Infrared Flat Top Photo Diode

### MTD1350

#### Features

High reliability  
Low dark current  
Narrow angular response  
Ultra high speed

#### Applications

Optical switches  
Edge sensing  
Smoke detectors

#### Maximum Ratings (Ta=25°C)

Characteristic	Symbol	Max.	Test Condition	Unit
Reverse Voltage	V <sub>R</sub>	20	-	V
Power Dissipation	P <sub>d</sub>	50.00	-	mW
Operating Temperature	T <sub>opr</sub>	-20 ~ +85	-	°C
Storage Temperature	T <sub>stg</sub>	-30 ~ +100	-	°C
Junction Temperature	T <sub>j</sub>	+100°	-	°C
Soldering Temperature	T <sub>sol</sub>	260°	for 5 sec. max	°C

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#### Opto-Electrical Characteristics (Ta=25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Open Circuit Voltage	V <sub>oc</sub>	-	-	-	-	V
Light Current	I <sub>L</sub>	V <sub>R</sub> =10V, E <sub>e</sub> =5mW/cm <sup>2</sup> *	18.00	23.00	-	μA
Dark Current	I <sub>D</sub>	V <sub>R</sub> =10V	-	-	10	nA
Spectral Sensitivity	λ	-	-	400~1100	-	μA
Peak Sensitivity Wavelength	λ <sub>p</sub>	-	-	940	-	V
Beam Angle	θ	-	-	± 65°	-	deg.
Responsivity	R <sub>i</sub>	V <sub>r</sub> =0V= 450mm	-	.20	-	A/W
Junction Capacitance	C <sub>j</sub>	1MHz, V <sub>R</sub> =2.5V	-	6	-	pF

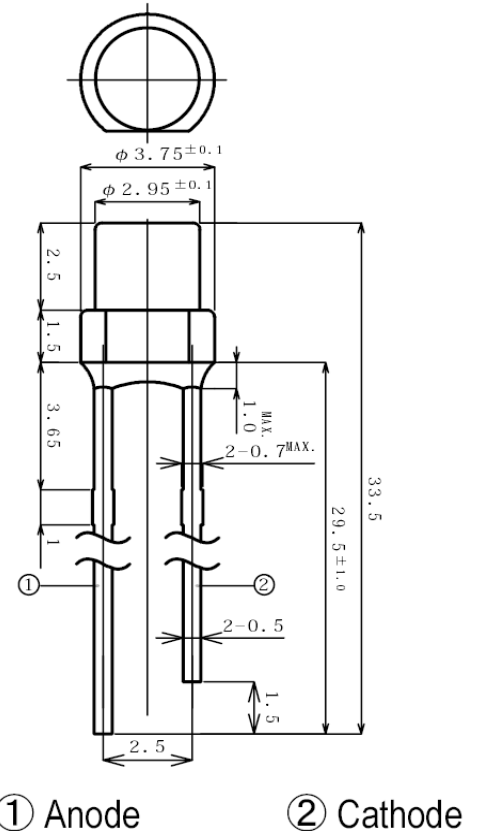
\*Color Temperature = 2870°K Standard Tungsten Lamp  
Specifications are subject to change without notice.

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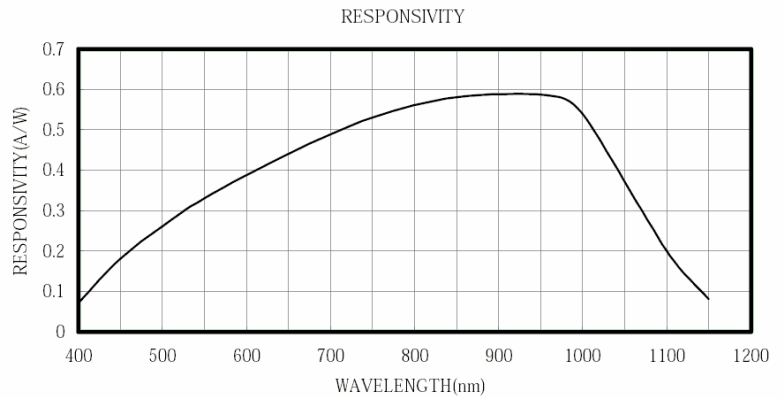
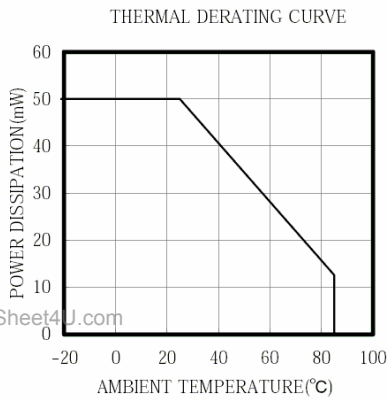
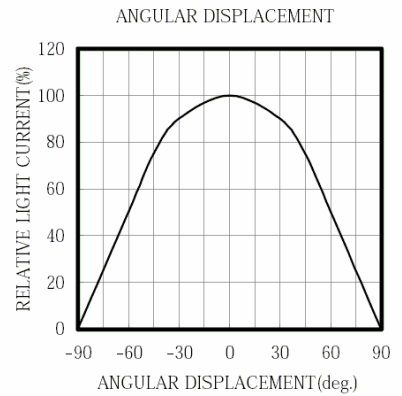
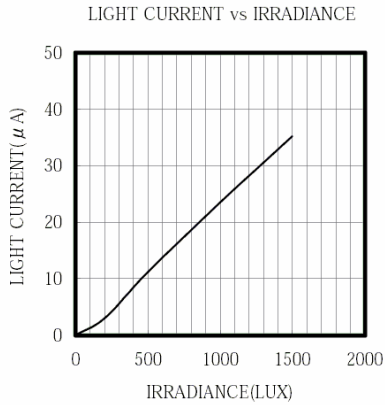
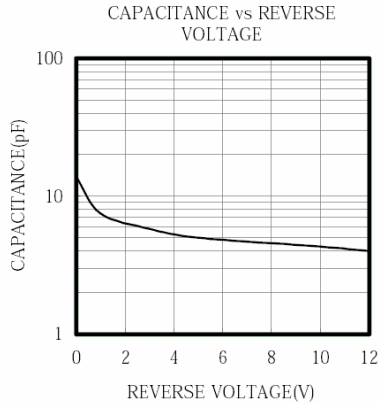
① Anode

② Cathode



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## MTD1350 Graphs



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