

# Egismos DATASHEET

## PD-SI-C-30-TH TO-18 Photodiode Key Features

Wavelength  $\lambda = 450\text{nm} \sim 1050\text{nm}$   
High output power  
High speed response  
Wide angular response  $\pm 30^\circ$   
Package type=5.6mm $\Phi$  (TO-18)



PD-SI-C-30-TH

### Applications

Optical switch for auto machine  
Transmitting distance with glass cable  
Laser Module & High Precision Engineering Instruments

### Description

The **PD-SI-C-30-TH** is high-output, high-speed silicon photo-diode chip mounted in durable hermetically sealed TO-18 metal can package, permits wide angular response.

### Electrical and Optical Characteristics at $T_c=25^\circ\text{C}$

Parameter	Symbols	Min.	Typ.	Max.	Unit	Condition
Open Circuit Voltage	Voc	0.3	0.4	-	V	$E_v=1,000 \text{ lux}^*$
Short Circuit Current	Isc	6	18		$\mu\text{A}$	$E_v=1,000 \text{ lux}^*$
Reverse Break Down Voltage	BVR	50	100	-	V	$I_R=10\mu\text{A}$
Dark Current	$I_D$	-	2.2	2.7	nA	$V_R=10\text{V}$
Capacitance	Ct	-	50	-	pF	$f=1\text{MHz}$
Spectrum Sensitivity	$\lambda$	450	-	1050	nm	
Peak Sensing Wavelength	$\lambda_p$	-	880	-	nm	
Half Angle	$\Delta\theta$	-	$\pm 30$	-	deg	

\*Parallel light of 1,000lux illumination is applied.

### Absolute Maximum Rating at $T_c=25^\circ\text{C}$

Parameter	Symbols	Value	Unit
Reverse Breakdown Voltage	BVR	35	V
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Operating Temperature	$T_{OPR}$	-30 ~ 100	$^\circ\text{C}$
Storage Temperature	$T_{STG}$	-40 ~ 110	$^\circ\text{C}$

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<http://www.egismos.com>

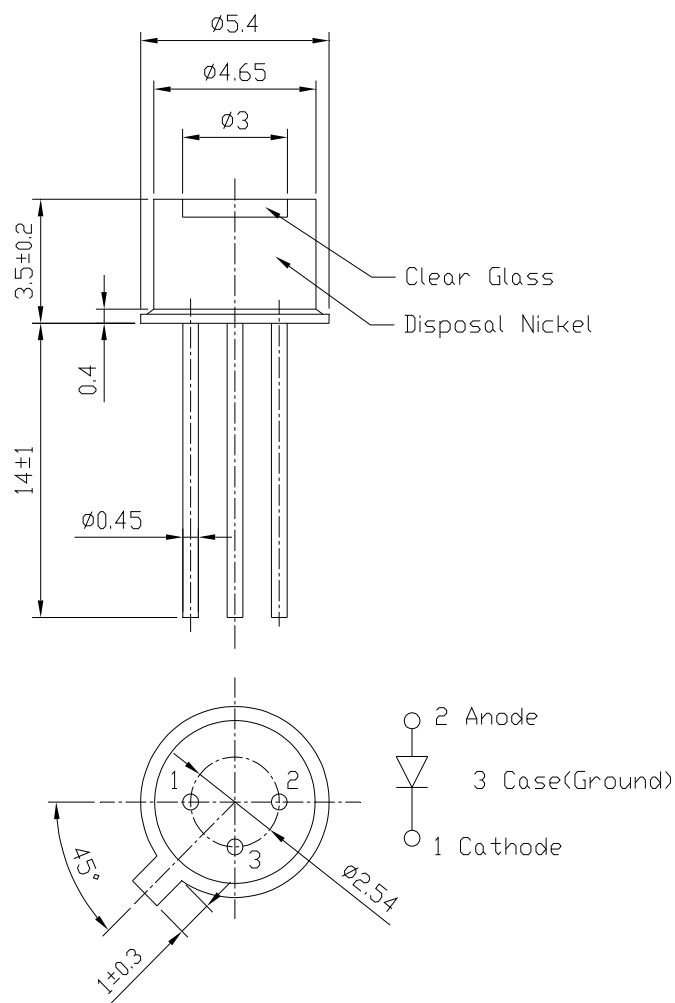
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## Laser Diode Package Drawing



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## Example of Representative Characteristics I

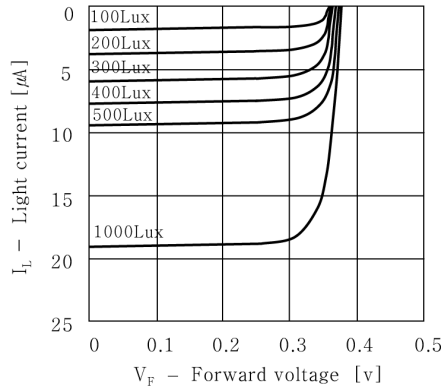


Fig 1. Light current v.s Forward voltage

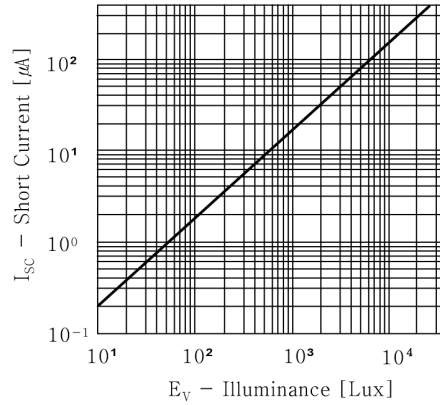


Fig 2. Short Current v.s Illuminance

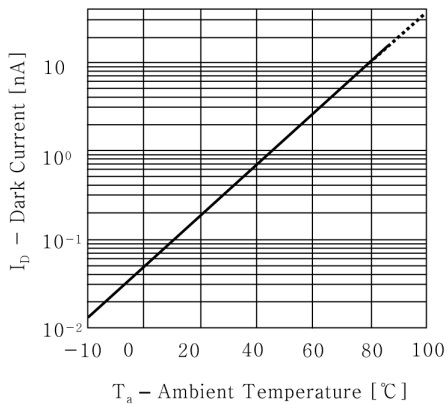


Fig 3. Dark Current v.s Ambient Temperature

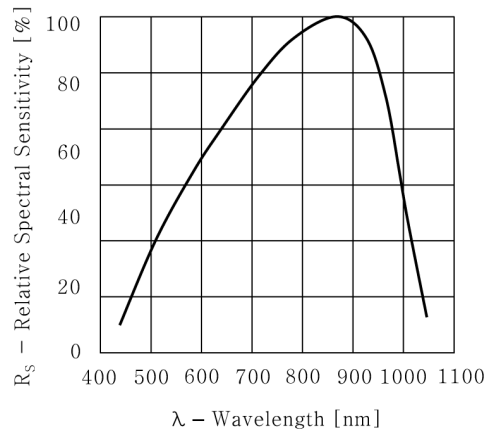


Fig 4. Relative spectral sensitivity v.s Wavelength

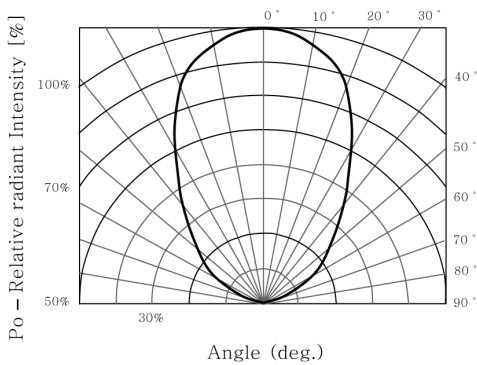


Fig 5. Radiant Pattern

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