

# LED1200-35M32 Stem type LED with high output power

LED1200-35M32 is an InGaAsP LED mounted on a TO-18 stem with a spherical glass lens being designed for high output power uses. On forward bias, it emits a spectral band of radiation, which peaks at 1200nm.

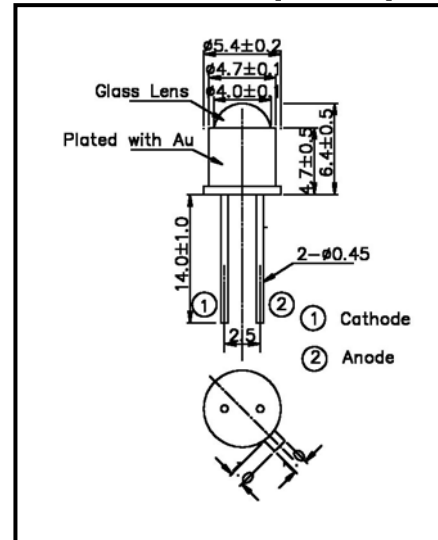
## ◆ Features

- 1) High radiated intensity
- 2) High Reliability

## ◆ Specifications

- |                     |                      |
|---------------------|----------------------|
| 1) Product Name     | NIR LED Lamp         |
| 2) Type No.         | LED1200-35M32        |
| 3) Chip Spec.       |                      |
| (1) Material        | InGaAs/InP           |
| (2) Peak Wavelength | 1200 nm              |
| 4) Package          |                      |
| (1) Type            | TO-18 stem           |
| (2) Lens            | Spherical glass lens |
| (3) Cap             | Gold plated          |

## ◆ Outer dimension [Unit:mm]



## ◆ Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	$P_D$	120	mW	$T_a = 25^\circ\text{C}$
Forward Current	$I_F$	100	mA	$T_a = 25^\circ\text{C}$
Pulse Forward Current	$I_{FP}$	1000	mA	$T_a = 25^\circ\text{C}$
Reverse Voltage	$V_R$	3	V	$T_a = 25^\circ\text{C}$
Operating Temperature	$T_{OPR}$	-20 ~ +90	$^\circ\text{C}$	
Storage Temperature	$T_{STG}$	-30 ~ +100	$^\circ\text{C}$	
Soldering Temperature	$T_{SOL}$	260	$^\circ\text{C}$	

‡Pulse Forward Current condition: Duty = 1% and Pulse Width = 10  $\mu\text{s}$ .

‡Soldering condition : Soldering condition must be completed within 3 seconds at  $260^\circ\text{C}$

## ◆ Electro-Optical Characteristics

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	$V_F$	$I_F = 20\text{ mA}$		0.8	1.3	V
Reverse Current	$I_R$	$V_R = 3\text{ V}$			10	$\mu\text{A}$
Total Radiated Power	$P_o$	$I_F = 20\text{ mA}$	0.8	1.8		mW
Peak Wavelength	$\lambda_P$	$I_F = 20\text{ mA}$	1150	1200	1250	nm
Half Width	$\Delta\lambda$	$I_F = 20\text{ mA}$		100		nm
Viewing Half Angle	$\theta_{1/2}$	$I_F = 20\text{ mA}$		$\pm 15$		deg.
Rise Time	$t_r$	$I_F = 20\text{ mA}$		10		ns
Fall Time	$t_f$	$I_F = 20\text{ mA}$		10		ns

‡Radiated Power is measured by Ando Optical Multi Meter AQ2140 & AQ2742