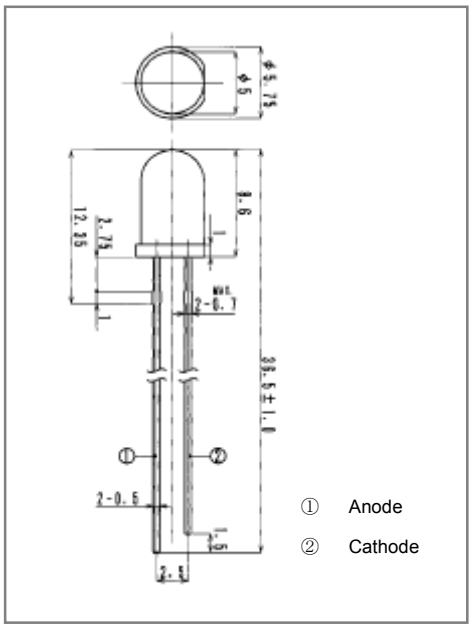
**Plastic Mold type**

# Model No. AE700M1

*Infrared LED*




## ◆ Features

- High Output Power
- Narrow Beam Angle
- High Reliability

## ◆ Applications

- Optical Switches
- Optical Sensors
- Medical Application

## ◆ Absolute Maximum Ratings

Ta = 25℃

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Forward Current (DC) | $I_F$ | 50 | mA |
| Pulse Forward Current *1 | $I_{FP}$ | 0.5 | A |
| Reverse Voltage (DC) | $V_R$ | 5 | V |
| Power Dissipation | $P_D$ | 120 | mW |
| Operating Temperature | Topr | -20 ~ +80 | ℃ |
| Storage Temperature | Tstg | -30 ~ +100 | ℃ |
| Junction Temperature | Tj | 100 | ℃ |
| Lead Soldering Temperature *2 | Tls | 260 | ℃ |

*1 : Tw=10 μ s, T=10mS *2 : within 3sec / up to 2mm from the body

## ◆ Electrical & Optical Characteristics

Ta = 25℃

| Parameter | Symbol | MIN | TYP | MAX | Unit | Conditions |
|---|---|---|---|---|---|---|
| Power Output | $P_O$ | -- | 3.5 | -- | mW | $I_F$ = 20mA |
| Forward Voltage | $V_F$ | -- | 1.8 | 2.3 | V | $I_F$ = 20mA |
| Reverse Current | $I_R$ | -- | -- | 100 | μ A | $V_R$ = 5V |
| Peak Wavelength | $\lambda_p$ | -- | 700 | -- | nm | $I_F$ = 20mA |
| Spectral Line Half Width | $\Delta\lambda$ | -- | 25 | -- | nm | $I_F$ = 20mA |
| Half Intensity Beam Angle | $\theta$ | -- | ±12 | -- | deg. | $I_F$ = 20mA |
| Rise Time | Tr | -- | -- | -- | ns | $I_{Fp}$ = 20mA |
| Fall Time | Tf | -- | -- | -- | ns | $I_{Fp}$ = 20mA |
| Junction Capacitance | Cj | -- | 35 | -- | pF | 1MHz, V=0V |
| Temp. Coefficient of $P_O$ | P/T | -- | -0.6 | -- | %/℃ | $I_F$ = 10mA |
| Temp. Coefficient of $V_F$ | V/T | -- | -1.9 | -- | mV/℃ | $I_F$ = 10mA |

*1

*The data would be changed due to improvement without notice.*