

# Plastic Mold Infrared LEDs

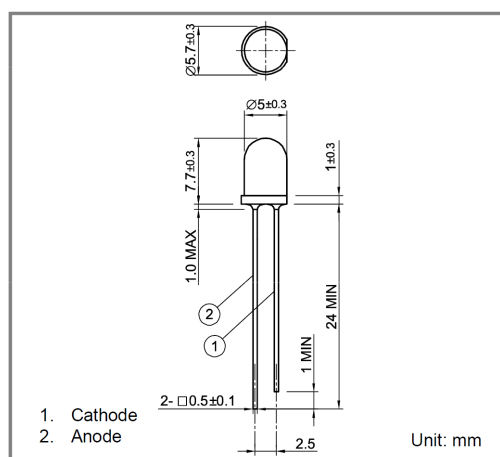
## KED863M51

### Features

- Transparent epoxy mold
- High power:22mW
- High speed response:25ns rise time
- Direct modulation

### Applications

- Available for wireless digital transmission
- Optical switches
- Optical encoders
- Optical instruments
- Automatic control apparatus



### Specifications

#### Absolute Maximum Ratings

| Parameter             | Symbol    | Value       | Unit | Conditions                         |
|-----------------------|-----------|-------------|------|------------------------------------|
| Forward current       | $I_F$     | 100         | mA   |                                    |
| Peak forward current  | $I_{FP}$  | 1           | A    | Puls width=100μs, Duty ratio=1%    |
| Reverse voltage       | $V_R$     | 5           | V    |                                    |
| Power dissipation     | $P_D$     | 150         | mW   |                                    |
| Operating temperature | $T_{opr}$ | -30 to +85  |      | Avoid dew condensation             |
| Storage temperature   | $T_{stg}$ | -30 to +100 |      | Avoid dew condensation             |
| Soldering temperature | $T_{sol}$ | 260         |      | Soldering time less than 5 seconds |

#### Electrical and Optical characteristics

| Parameter            | Symbol           | Value |      |     | Unit | Conditions |
|----------------------|------------------|-------|------|-----|------|------------|
|                      |                  | Min.  | Typ. | Max |      |            |
| Forward voltage      | $V_F$            |       | 1.5  | 1.8 | V    | $I_F=50mA$ |
| Reverse Current      | $I_R$            |       |      | 10  | μA   | $V_R=5V$   |
| Optical output power | $P_O$            |       | 22   |     | mW   | $I_F=50mA$ |
| Peak wavelength      | $\lambda_p$      |       | 865  |     | nm   | $I_F=50mA$ |
| Spectral width       | $\Delta \lambda$ |       | 40   |     | nm   | $I_F=50mA$ |
| Half angle           | $2\theta$        |       | 50   |     | deg  | $I_F=50mA$ |
| Rise time            | $t_r$            |       | 25   |     | ns   | $I_F=50mA$ |
| Fall time            | $t_f$            |       | 15   |     | ns   | $I_F=50mA$ |

