

Peak Emission Wavelength: 900nm

The MT5900-IR is an infrared T 1 3/4, 5mm water clear LED designed for applications requiring high power and high speed packaged with the lens optimized to produce a narrow viewing angle.

FEATURES

- > High Power Output
- > High Speed
- > Straight Leads

APPLICATIONS

- > Remote Controls
- > Smoke Detectors
- > Optical Sensors / Switches



Absolute Maximum Ratings (Ta=25°C)

| ITEMS | SYMBOL | RATINGS | UNIT |
|------------------------------|--------|------------|------|
| Forward Current | IF | 100 | mA |
| Peak Forward Current*1 | IFP | 200 | mA |
| Power Dissipation | PD | 180 | mW |
| Operating Temperature Range | Topr | -20 ~ +80 | °C |
| Storage Temperature Range | Tstg | -40 ~ +100 | °C |
| Lead Soldering Temperature*2 | Tls | 260 | °C |

*1: Test Conditions: $t_p \leq 50\mu s$, $t_p/T = 1/2$. *2: Time 5 Sec max, Position: Up to 3mm from case.

Electrical & Optical Characteristics (Ta = 25°C)

| ITEMS | SYMBOL | CONDITIONS | MIN | TYP | MAX | UNIT |
|---------------------------|---------------------------------|------------|-----|-----|-----|-------|
| Forward Voltage | VF | IF=20mA | -- | 1.4 | 1.8 | V |
| Forward Voltage | VF | IF=100mA | -- | 1.6 | 2.0 | V |
| Reverse Voltage | VR | IR=10μA | 5 | -- | -- | V |
| Radiant Power | Φe | IF=20mA | -- | 10 | -- | mW |
| Radiant Power | Φe | IF=100mA | -- | 45 | -- | mW |
| Radiant Intensity | le | IF=20mA | -- | 40 | -- | mW/sr |
| Radiant Intensity | le | IF=100mA | -- | 190 | -- | mW/sr |
| Peak Emission Wavelength | λp | IF=20mA | 890 | 900 | 910 | nm |
| Spectral Bandwidth at 50% | Δλ _{0.5} | IF=20mA | -- | 65 | -- | nm |
| Viewing Angle | Θ | IF=20mA | -- | 20 | -- | deg. |
| Switching Time | T _R , T _F | IF=20mA | -- | 35 | -- | ns |

RADIATION

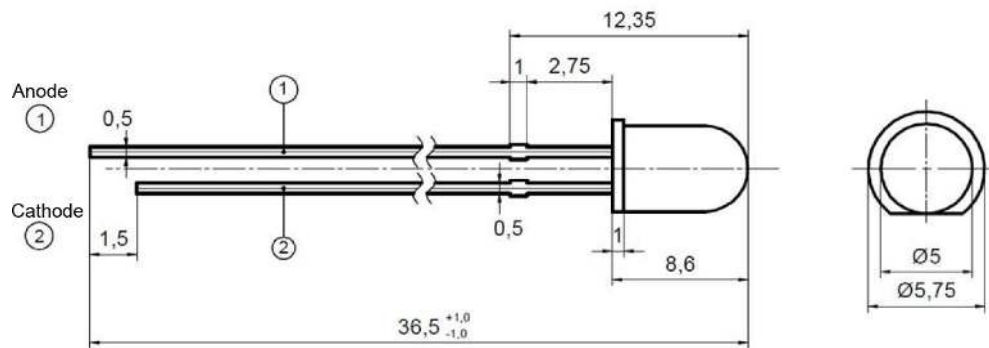
Infrared

TYPE

DDH

CASE

5mm Plastic Lens



Unit: mm