# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

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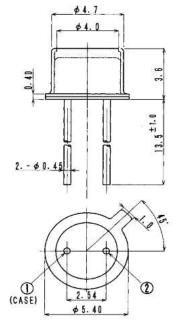




# Infrared Emitter

#### Product No: MTE0012-095-IR

#### Peak Emission Wavelength: 1200nm



1- cathode, 2 -anode, all dimensions in mm, tolerance: ±0.2

#### Description

- TO-46 with flat glass lens cap
- Type: InGaAs/InP, MQW
- High power
- High speed
- Wide beam angle
- High reliability

#### Application

- Optical switches
- Optical communication
- Safety equipment
- Automation
- Applications requiring high output and precise optical / mechanical axis alignment.

### Absolute Maximum Ratings (Ta=25°C)

| ITEMS                        | TEST CONDITIONS           | SYMBOL | RATINGS             | UNIT | lead-free RoHS |  |
|------------------------------|---------------------------|--------|---------------------|------|----------------|--|
| Forward DC Current           |                           | If     | 100                 | mA   |                |  |
| Peak Forward Current (pulse) | pulse width=10us, duty=1% | Ifp    | 200                 | mA   |                |  |
| Reverse Voltage              | Ir=100uA                  | Vr     | 5                   | V    |                |  |
| Power Dissipation            |                           | Pd     | 150                 | mW   |                |  |
| Operating Temperature Range  |                           | Тор    | - <b>2</b> 5 to +85 | °C   |                |  |
| Storage Temperature Range    |                           | Tst    | -30 to +100         | °C   |                |  |
| Lead Soldering Temperature   | t<5sec, 3mm from case     | Tslg   | 260                 | °C   |                |  |
| Junction Temperature         |                           | Tj     | 100                 | °C   |                |  |
|                              |                           |        |                     |      |                |  |

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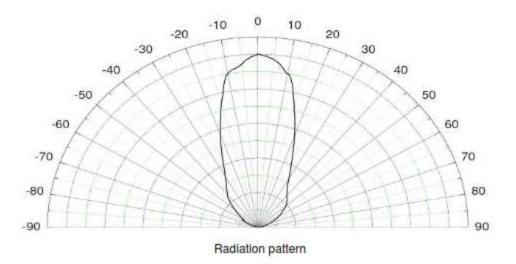
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Product No: MTE0012-095-IR

| Electrical & Optical Characteristics (Ta = 25°C) |        |                   |     |        |      |      |  |  |  |
|--|--------|-------------------|-----|--------|------|------|--|--|--|
| ITEMS  | SYMBOL | CONDITIONS        | MIN | ТҮР    | МАХ  | UNIT |  |  |  |
| Forward Voltage                                  | Vf     | lf=20mA           |     | 0.9    | 1.0  | V    |  |  |  |
| Forward Voltage                                  | Vf     | lf=50mA           |     | 0.95   | 1.1  | V    |  |  |  |
| Forward Voltage                                  | Vf     | If= <b>10</b> 0mA |     | 1.0    | 1.2  | V    |  |  |  |
| Reverse Current                                  | Ir     | Vr=5V             |     | 10     |      | uA   |  |  |  |
| Radiant Power                                    | Φe     | If=20mA           |     | 1.5    |      | mW   |  |  |  |
| Radiant Power                                    | Фе     | If=50mA           |     | 3.5    |      | mW   |  |  |  |
| Radiant Power                                    | Фе     | If=100mA          |     | 6      |      | mW   |  |  |  |
| Peak Wavelength                                  | λρ     | If=50mA           |     | 1170   | 1230 | nm   |  |  |  |
| Spectral Bandwidth at 50%                        | Δλ0.5  | If=50mA           |     | 70     |      | nm   |  |  |  |
| Viewing Angle                                    | φ      | If=50mA           |     | +/-25  |      | deg  |  |  |  |
| Switching Time                                   | tr, tf | If=20mA           |     | 25, 40 |      | ns   |  |  |  |
|  |        |                   |     |        |      |      |  |  |  |

## **Radiation Pattern**



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