

## Peak Emission Wavelength: 1300nm

The MTSM1300MT2-BK consists of a 1300nm high output infrared die in a PLCC-2 black plastic molded surface mount package. Custom package solutions and sorting are available.

### FEATURES

- > High Output Power
- > Wide Beam Angle
- > High Reliability

### APPLICATIONS

- > Optical Switches & Sensors
- > Fiber Optical Communication
- > Bar-code Reader



## Absolute Maximum Ratings (Ta=25°C)

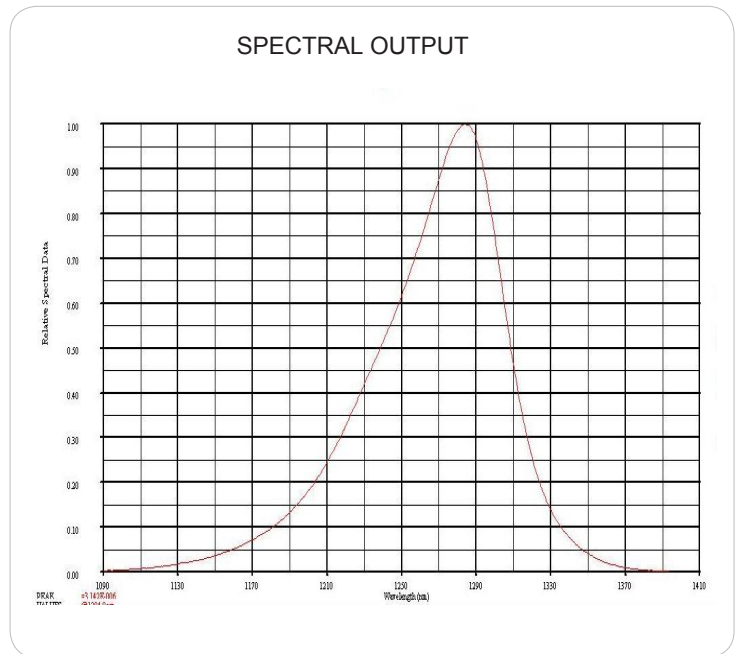
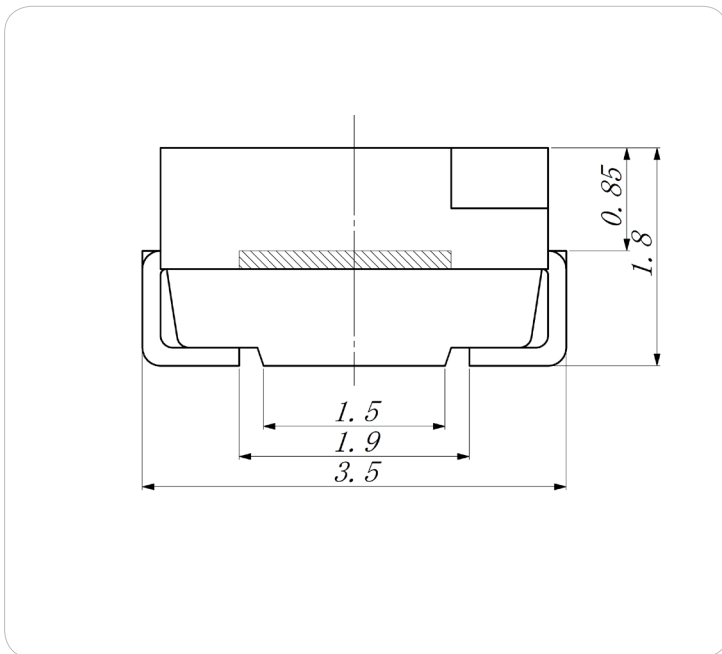
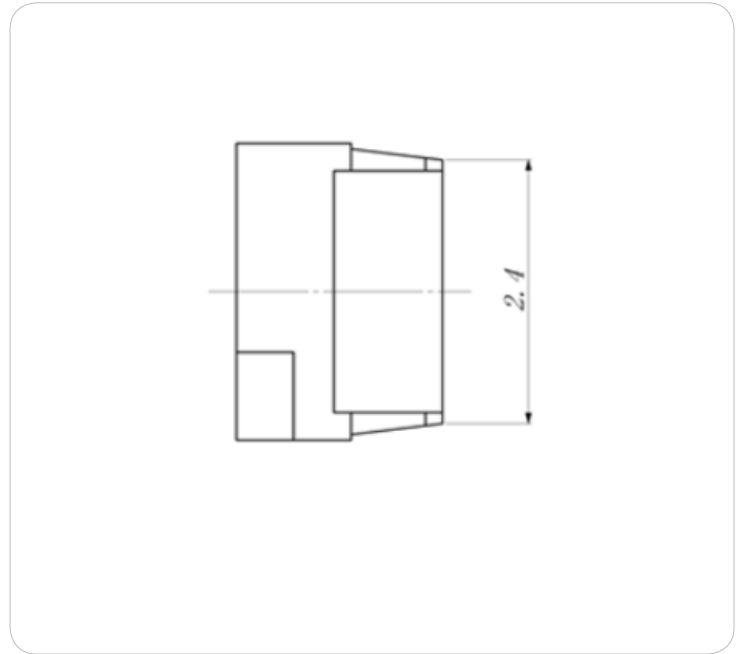
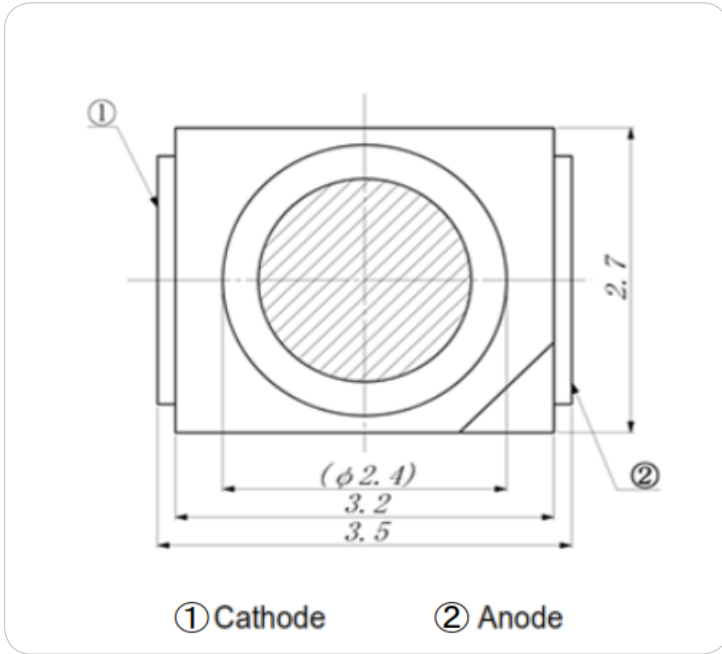


| ITEMS                       | SYMBOL | RATINGS    | UNIT |
|-----------------------------|--------|------------|------|
| Forward Current (DC)        | IF     | 100        | mA   |
| Forward Current (Pulse)*1   | IFP    | 1          | A    |
| Reverse Voltage             | VR     | 5          | V    |
| Power Dissipation           | PD     | --         | mW   |
| Operating Temperature Range | Topr   | -20 ~ +80  | °C   |
| Storage Temperature Range   | Tstg   | -30 ~ +100 | °C   |
| Junction Temperature        | Tj     | 100        | °C   |
| Lead Soldering Temperature  | Tls    | 260        | °C   |

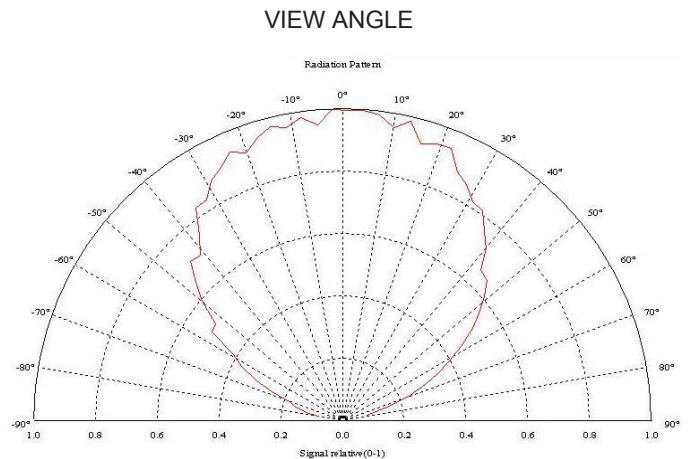
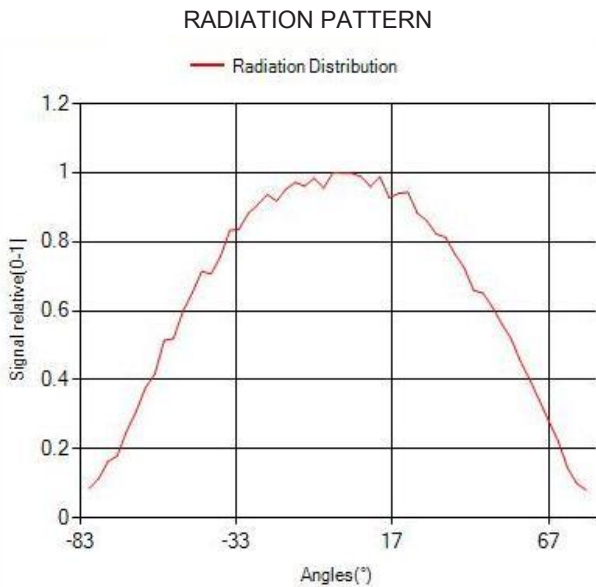
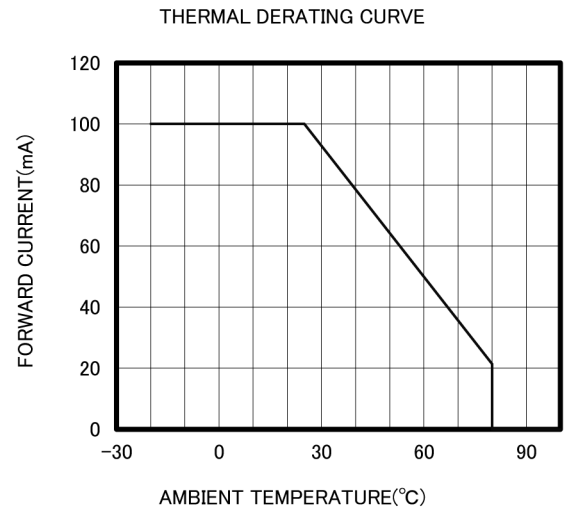
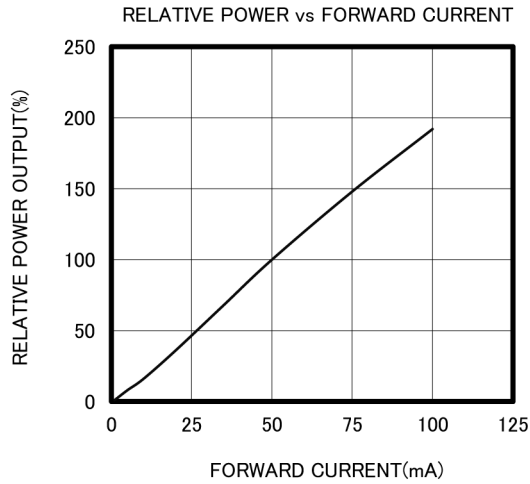
\*1: Tw=10μsec, T=10msec.

## Electrical & Optical Characteristics (Ta = 25°C)

| ITEMS                     | SYMBOL | CONDITIONS | MIN | TYP  | MAX | UNIT |
|---------------------------|--------|------------|-----|------|-----|------|
| Power Output              | PO     | IF=20mA    | --  | 2.0  | --  | mW   |
| Power Output              | PO     | IF=50mA    | --  | 4.0  | --  | mW   |
| Forward Voltage           | VF     | IF=20mA    | --  | 0.95 | --  | V    |
| Forward Voltage           | VF     | IF=50mA    | --  | 1.03 | --  | V    |
| Reverse Current           | IR     | VR=5V      | --  | --   | 100 | μA   |
| Peak Emission Wavelength  | λp     | IF=50mA    | --  | 1300 | --  | nm   |
| Spectral Line Half Width  | Δλ     | IF=50mA    | --  | 70   | --  | nm   |
| Half Intensity Beam Angle | Θ      | IF=50mA    | --  | ±55  | --  | deg  |



Unit: mm, Tolerance: ±0.2



The information contained herein is subject to change without notice.

2020-04-30

FORWARD I-V CHARACTERISTICS

