

Peak Emission Wavelength: 1070nm

The MTE7110C1 consists of a 1070nm high output infrared die in a water-clear 5mm plastic molded package. Custom package solutions and sorting are available.

FEATURES

- > High Output Power
- > High Reliability
- > Compact

APPLICATIONS

- > Optical Switches
- > Optical Sensors
- > Fiber Optical Communication



Absolute Maximum Ratings (Ta=25°C)

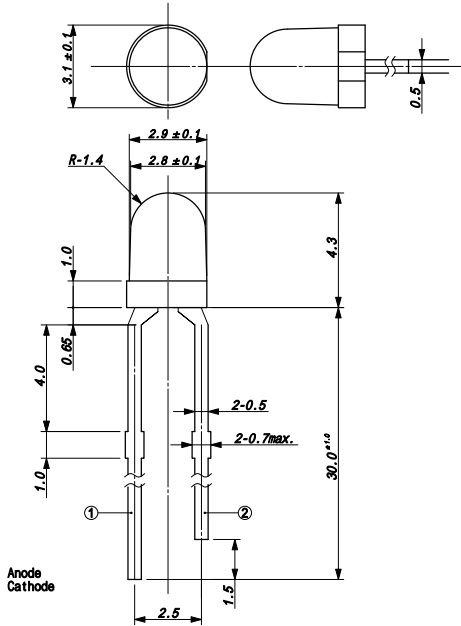


| ITEMS | SYMBOL | RATINGS | UNIT |
|------------------------------|--------|------------|------|
| Forward Current | IF | 100 | mA |
| Forward Current (Pulse)*1 | IFP | 1 | A |
| Reverse Voltage | VR | 5 | V |
| Power Dissipation | PD | -- | mW |
| Operating Temperature Range | Topr | -20 ~ +85 | °C |
| Storage Temperature Range | Tstg | -30 ~ +100 | °C |
| Junction Temperature | Tj | 100 | °C |
| Lead Soldering Temperature*2 | Tls | 260 | °C |

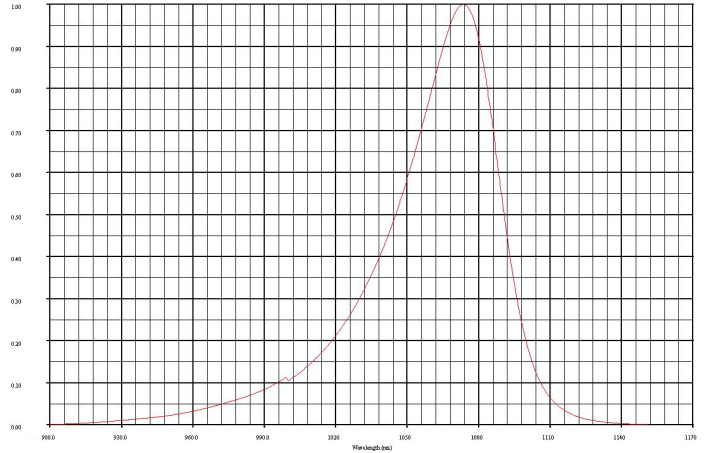
*1: Tw=10μsec, T=10msec; *2: Time 5 Sec max, Position: Up to 3mm from the body.

Electrical & Optical Characteristics (Ta = 25°C)

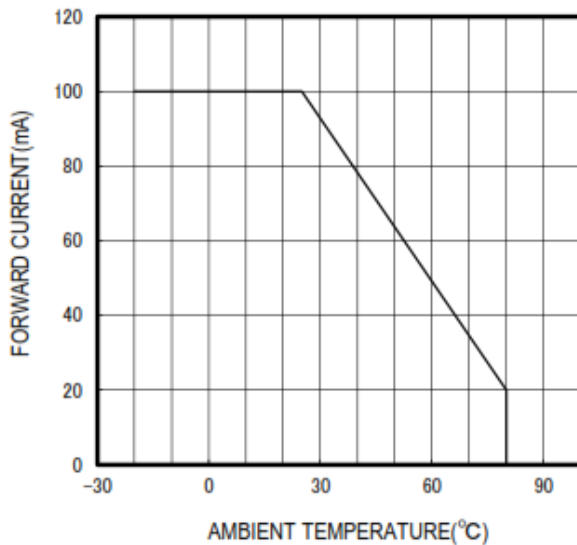
| ITEMS | SYMBOL | CONDITIONS | MIN | TYP | MAX | UNIT |
|---------------------------|--------|------------|-----|------|-----|------|
| Power Output | PO | IF=50mA | -- | 25 | -- | mW |
| Forward Voltage | VF | IF=50mA | -- | 1.3 | -- | V |
| Reverse Current | IR | VR=5V | -- | -- | 100 | μA |
| Peak Emission Wavelength | λp | IF=50mA | -- | 1070 | -- | nm |
| Spectral Line Half Width | Δλ | IF=50mA | -- | 45 | -- | nm |
| Half Intensity Beam Angle | Θ | IF=50mA | -- | ±25 | -- | deg |



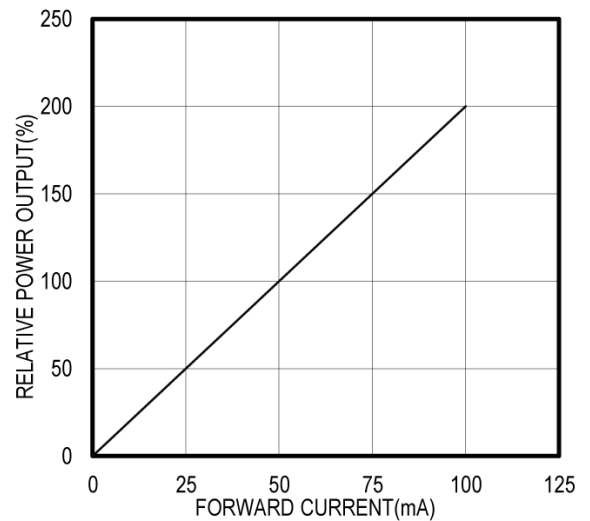
SPECTRAL RESPONSE



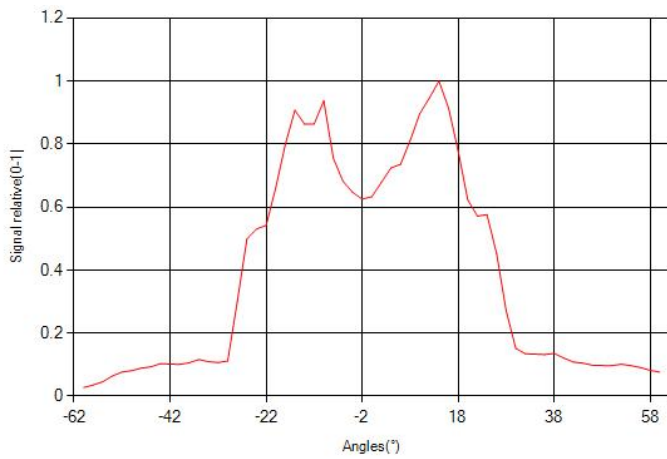
THERMAL DERATING CURVE



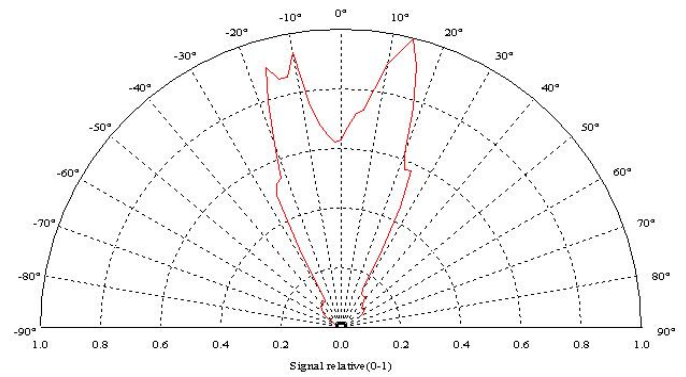
RELATIVE POWER vs FORWARD CURRENT



RADIATION DISTRIBUTION



VIEW ANGLE



The information contained herein is subject to change without notice.

2023-10-20