

## Peak Emission Wavelength: 1300nm

The MTE1301C1 consists of a 1300nm 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)

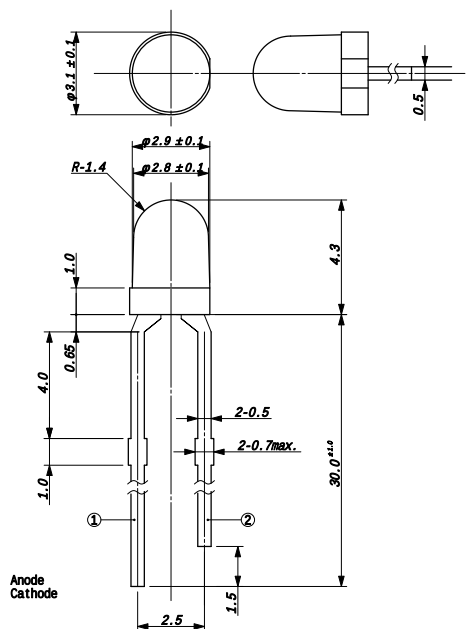


| ITEMS                        | SYMBOL | RATINGS    | UNIT |
|------------------------------|--------|------------|------|
| Forward Current              | IF     | 100        | mA   |
| Forward Current (Pulse)*1    | IFP    | 1          | A    |
| Reverse Voltage              | VR     | 5          | 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   |

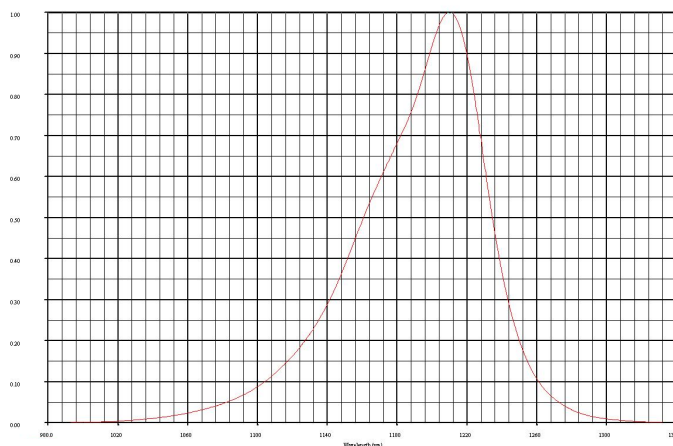
\*1: Tw=10μsec, T=10msec; \*2: Time 5 Sec max, Position: Up to 3mm from the body.

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

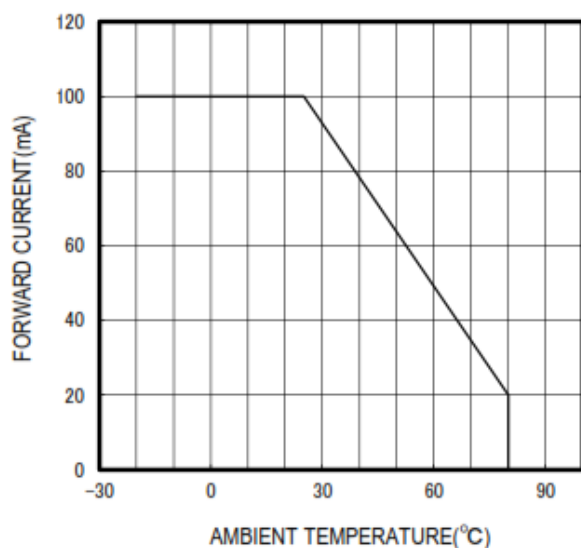
| ITEMS                     | SYMBOL | CONDITIONS | MIN | TYP  | MAX | UNIT |
|---------------------------|--------|------------|-----|------|-----|------|
| Power Output              | PO     | IF=50mA    | --  | 10   | --  | mW   |
| Forward Voltage           | VF     | IF=50mA    | --  | 1.0  | --  | V    |
| Reverse Current           | IR     | VR=5V      | --  | --   | 100 | μA   |
| Peak Emission Wavelength  | λp     | IF=50mA    | --  | 1310 | --  | nm   |
| Spectral Line Half Width  | Δλ     | IF=50mA    | --  | 80   | --  | nm   |
| Half Intensity Beam Angle | Θ      | IF=50mA    | --  | ±25  | --  | deg  |



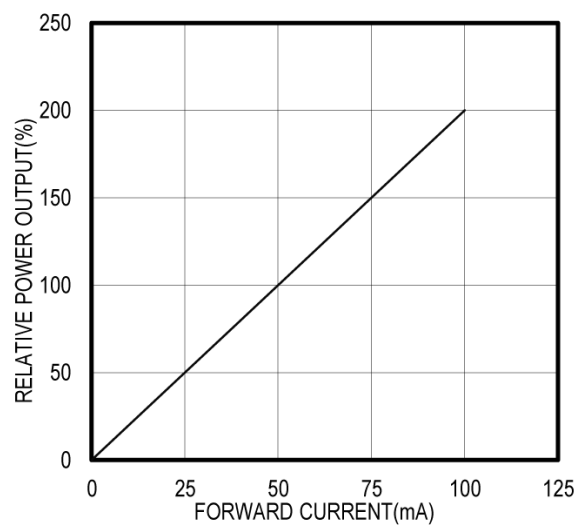
SPECTRAL RESPONSE



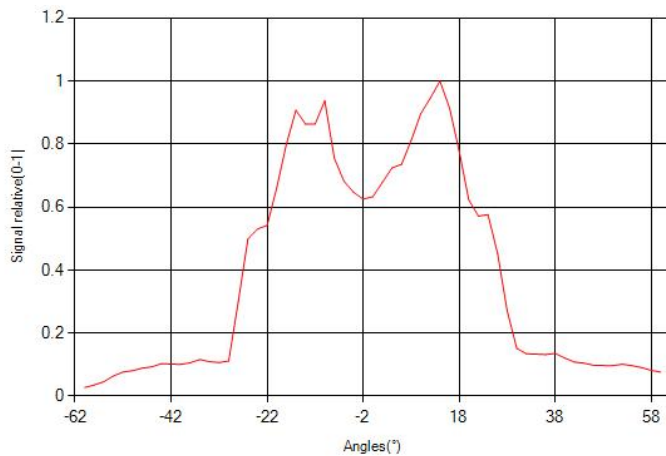
THERMAL DERATING CURVE



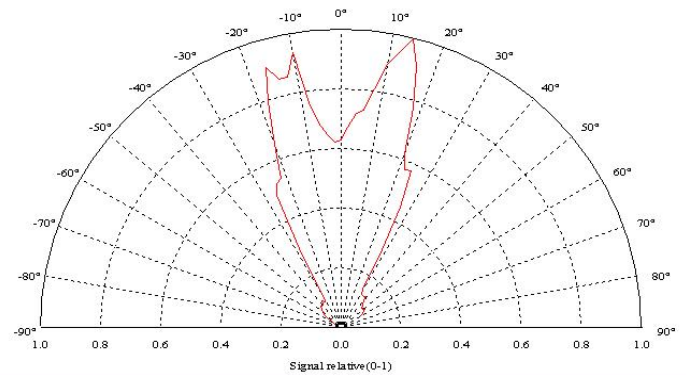
RELATIVE POWER vs FORWARD CURRENT



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