

# PT600T

## Ultra-compact Chip Part Type Phototransistor

### ■ Features

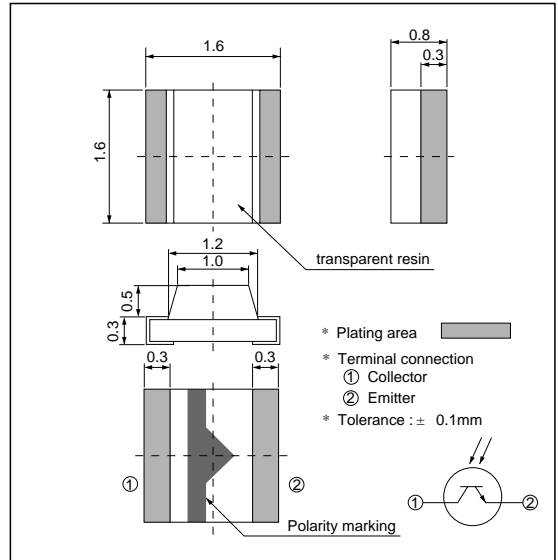
1. Ultra-compact type (1.6 x 1.6 x 0.8 mm)
2. Thin type (thickness : 0.8 mm)
3. Surface mounting type (leadless)
4. Taped model (4000 pcs/reel)

### ■ Applications

1. For liquid crystal backlight LED ON-OFF control
2. Pagers
3. Cellular phones
4. Other portable equipment

### ■ Outline Dimensions

(Unit : mm)



### ■ Absolute Maximum Ratings

(Ta = 25°C)

| Parameter                   | Symbol           | Rating      | Unit |
|-----------------------------|------------------|-------------|------|
| Collector-emitter voltage   | V <sub>CEO</sub> | 35          | V    |
| Emitter-collector voltage   | V <sub>ECO</sub> | 6           | V    |
| Collector current           | I <sub>C</sub>   | 20          | mA   |
| Collector Power dissipation | P <sub>C</sub>   | 50          | mW   |
| Operating temperature       | T <sub>opr</sub> | -25 to +85  | °C   |
| Storage temperature         | T <sub>stg</sub> | -25 to +100 | °C   |
| *1 Soldering temperature    | T <sub>sol</sub> | 260         | °C   |

\*1 Hand soldering temperature, for MAX. 3 seconds

### ■ Electro-optical Characteristics

(Ta = 25°C)

| Parameter                            |      | Symbol               | Conditions *2  | MIN. | TYP. | MAX. | Unit |
|--------------------------------------|------|----------------------|--|------|------|------|------|
| Collector current                    |      | I <sub>C</sub>       | E <sub>e</sub> = 5mW/cm <sup>2</sup> , V <sub>CE</sub> = 5V    | 0.7  | 3.5  | 9.6  | mA   |
| Dark current                         |      | I <sub>CEO</sub>     | E <sub>e</sub> = 0, V <sub>CE</sub> = 20V                      | -    | -    | 0.1  | μA   |
| Collector-emitter saturation voltage |      | V <sub>CE(sat)</sub> | E <sub>e</sub> = 10mW/cm <sup>2</sup> , I <sub>C</sub> = 0.5mA | -    | 0.2  | 0.4  | V    |
| Peak sensitivity wavelength          |      | λ <sub>p</sub>       | -  | -    | 880  | -    | nm   |
| Response time                        | Rise | t <sub>r</sub>       | V <sub>CE</sub> = 20V, I <sub>C</sub> = 1mA                    | -    | 10   | -    | μs   |
|                                      | Fall | t <sub>f</sub>       |  |      |      |      |      |
| Half intensity angle                 |      | Δθ                   | -  | -    | ± 60 | -    | °    |

\*2 E<sub>e</sub> : Irradiance by CIE standard light source A (tungsten lamp)