

Peak Sensitivity Wavelength: 880nm

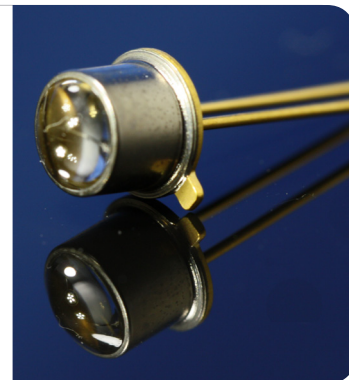
The MTD8600N-T is a photo transistor in a TO-18 metal can domed package. It is well suited for high reliability and high sensitivity applications.

FEATURES

- > High Reliability in Demanding Environments
- > Narrow Angular Response
- > Metal Can Package
- > Compact

APPLICATIONS

- > Optical Switches
- > Optical Sensors
- > Edge Sensing
- > Smoke Detectors



Absolute Maximum Ratings (Ta=25°C)



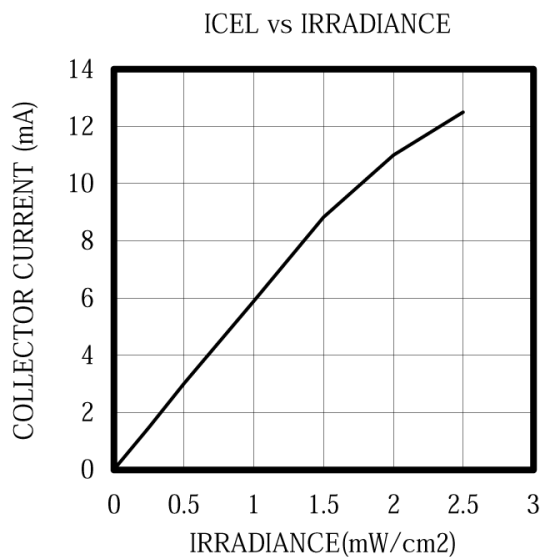
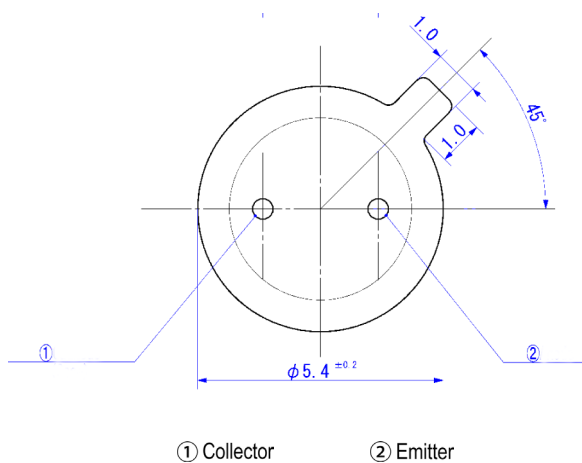
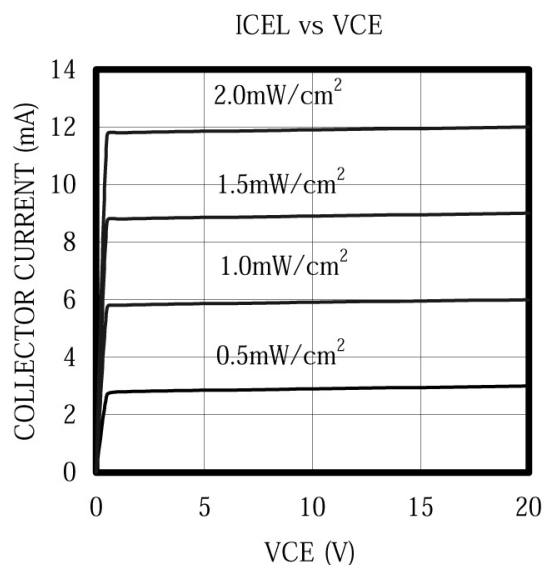
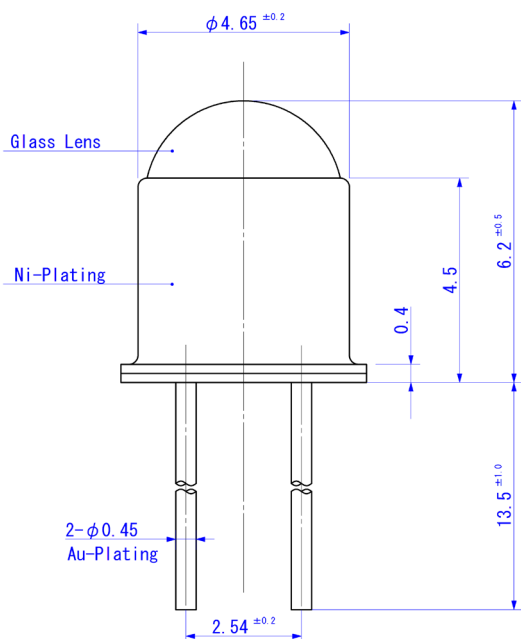
| ITEMS | SYMBOL | RATINGS | UNIT |
|------------------------------|--------|------------|------|
| Collector-Emitter Voltage | Vceo | 30 | V |
| Emitter-Collector Voltage | Veco | 5 | V |
| Collector Current | Ic | 50 | mA |
| Collector Power Dissipation | Pc | 250 | mW |
| Operating Temperature Range | Topr | -30 ~ +100 | °C |
| Storage Temperature Range | Tstg | -40 ~ +125 | °C |
| Junction Temperature | Tj | 125 | °C |
| Lead Soldering Temperature*1 | Tls | 260 | °C |

*1: Time 5 Sec max, Position: Up to 3mm from the body.

Electrical & Optical Characteristics (Ta = 25°C)

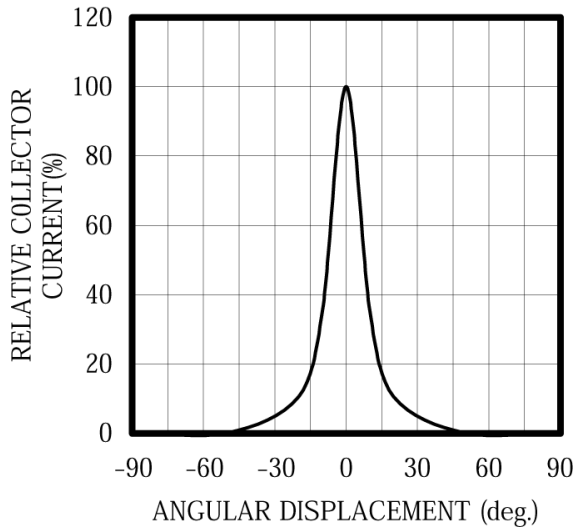
| ITEMS | SYMBOL | CONDITIONS | MIN | TYP | MAX | UNIT |
|-----------------------------|----------|--------------------------------------|-----|----------|-----|------|
| Collector Emitter Current | Icel | Vce=20V, Ee=0.5mW/cm ² *1 | -- | 3.0 | -- | mA |
| Collector Dark Current | Iceo | Vce=20V, Ee=0mW/cm ² *1 | -- | -- | 100 | nA |
| C-E Saturation Voltage | VCE(sat) | Ic=0.2mA, Ee=5mW/cm ² *1 | -- | 0.2 | -- | V |
| Spectral Sensitivity | λ | -- | -- | 400~1100 | -- | nm |
| Peak Sensitivity Wavelength | λp | -- | -- | 880 | -- | nm |
| Switching Time (Rise Time) | Tr | RL=100Ω, Vcc=5V, Ic=0.5mA | -- | 10.0 | -- | μS |
| Switching Time (Fall Time) | Tf | RL=100Ω, Vcc=5V, Ic=0.5mA | -- | 10.0 | -- | μS |
| Angular Response | θ | -- | -- | ±12 | -- | deg |

*1: Color Temperature=2870°K Standard Tungsten Lamp.

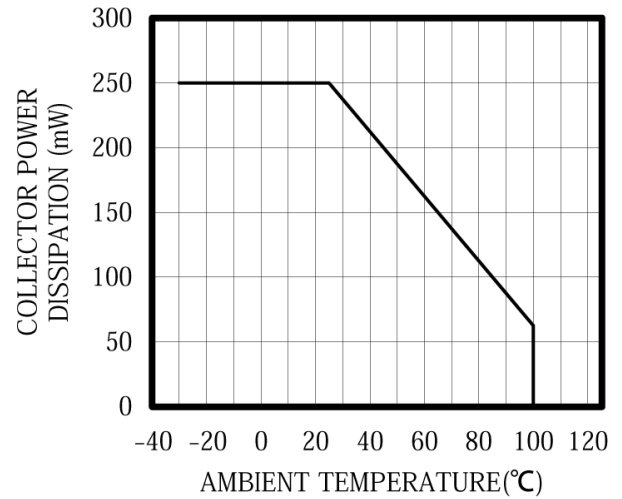


Unit: mm, Tolerance: ± 0.2

ANGULAR DISPLACEMENT



THERMAL DERATING CURVE



RELATIVE RESPONSE vs λ

