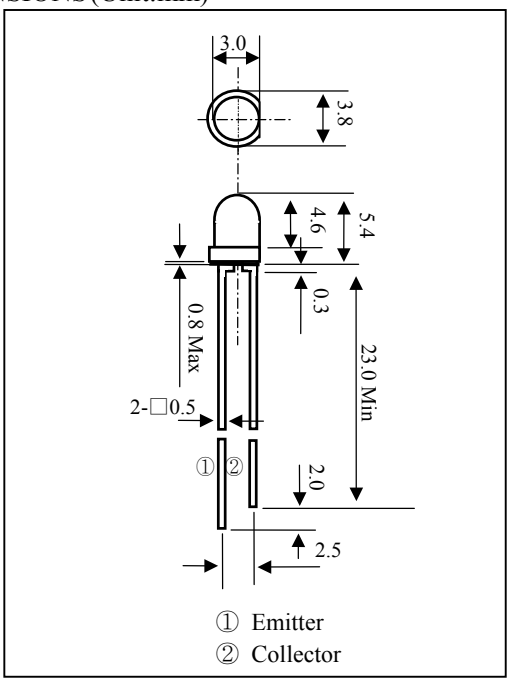
# TS-8

The TS-8 is a high-sensitivity NPN silicon phototransistor mounted in a black plastic package. With lensed package, this small phototransistor permits narrow angular response.

DIMENSIONS (Unit:mm)




**FEATURES**
- Compact (φ3mm)
- Narrow angular response

**APPLICATIONS**
- Optical counters
- Optical detectors
- Camera stroboscopes

**STORAGE**
- Condition : 5°C~35°C,R.H.60%
- Terms : within 3 months from production date
- Remark : Once the package is opened, the products should be used within a day. Otherwise, it should be keeping in a damp proof box with desiccants.

* Please take proper steps in order to secure reliability and safety in required conditions and environments for this device.

**MAXIMUM RATINGS** (Ta=25℃)

| Item | Symbol | Rating | Unit |
|---|---|---|---|
| C-E Voltage. | $V_{CEO}$ | 35 | V |
| E-C Voltage. | $I_F$ | 6 | V |
| Collector current. | $I_{FP}$ | 20 | mW |
| Collector Power dissipation. | Pc | 75 | mA |
| Operating temp. | Topr. | -25~+85 | °C |
| Storage temp. | Tstg. | -30~+100 | °C |
| Soldering temp. *1 | Tsol. | 260°C within 5 seconds | |

*1.Lead Soldering Temperature (2㎜ from case for 5sec.).

**ELECTRO-OPTICAL CHARACTERISTICS** (Ta=25℃)

| Item | | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|---|
| Collector dark current. | | $I_{CEO}$ | $V_{CEO}$=10V, Ev=0 | | 1 | 100 | nA |
| Light current. *2 | | $I_{CEL}$ | $V_{CE}$=3V,Ev =1000$_{LUX}$ | 0.5 | 5.0 | - | mA |
| C-E Saturation Voltage | | $V_{CE(SAT)}$ | Ic=0.2㎃,2000$_{LUX}$ | | 0.2 | 0.4 | V |
| Switching speeds | Rise time | tr | | | 2.5 | | μsec. |
| | Fall time | tf | | | 3.8 | | μsec. |
| Spectral Sensitivity | | λ | | 700~1000 | | nm | |
| Peak Sensitivity wavelength | | $\lambda_P$ | | | 880 | | nm |
| Half angle | | Δ Θ | | | ±17 | | deg. |

*2 Tungsten lamp of a color temperature of T=2856°K