



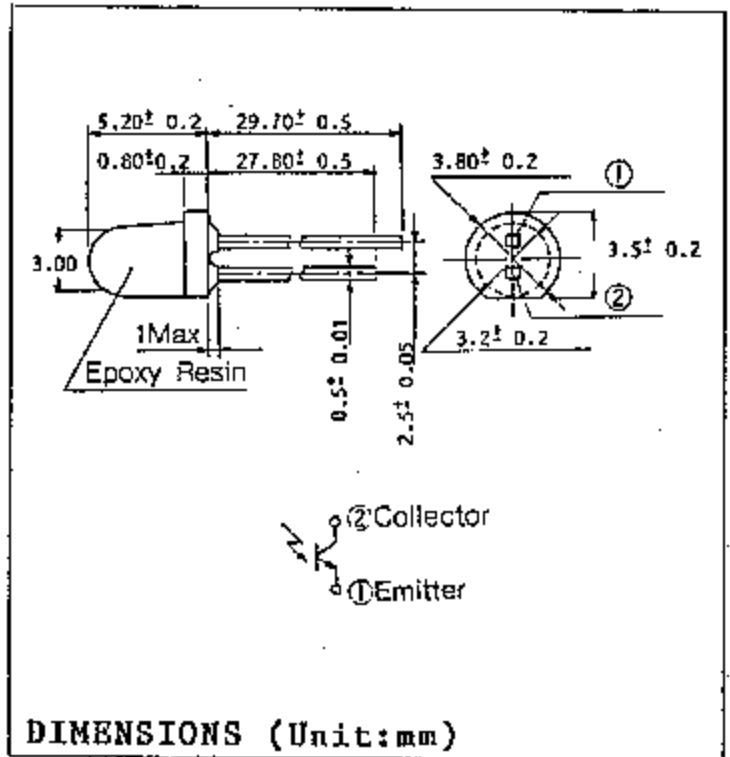
TECHNICAL DATA SHEET

ST-8LR2

SILICON PHOTOTRANSISTOR

T-41-61

The ST-8LR2 is a low cost, high sensitivity NPN silicon phototransistor mounted in a black plastic package. With a built-in lens this small phototransistor permits narrow angular response.



MAXIMUM RATINGS (T_a = 25°C)

| ITEM | SYMBOL | RATING | UNIT |
|-----------------------------|-------------------|---------|------|
| C-E Voltage | V _{ce} | 20 | V |
| E-C Voltage | V _{ec} | 5 | V |
| Collector current | I _c | 20 | mA |
| Collector power dissipation | P _c | 75 | mW |
| Operating temp. | T _{opr.} | -20 +80 | °C |
| Storage temp. | T _{stg.} | -20 +80 | °C |
| Soldering temp. *1 | T _{sol.} | 240 | °C |

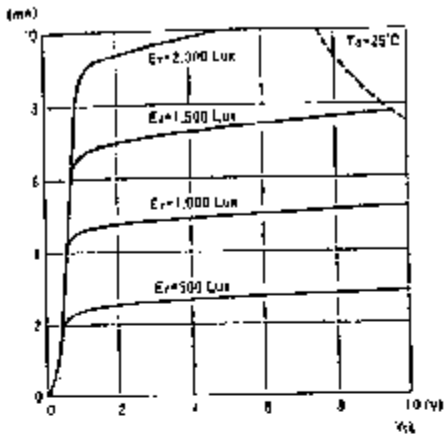
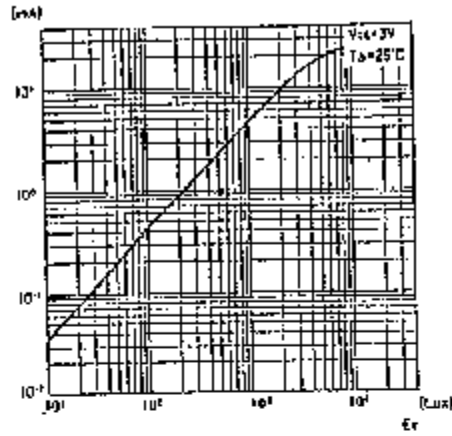
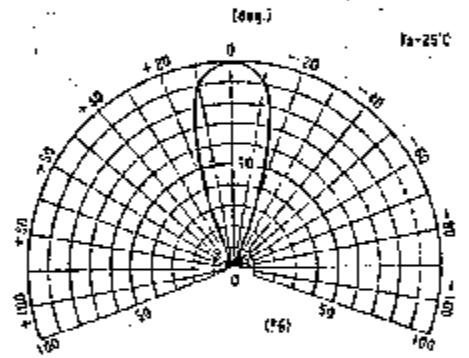
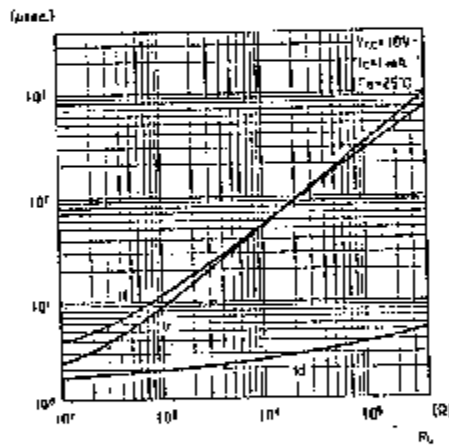
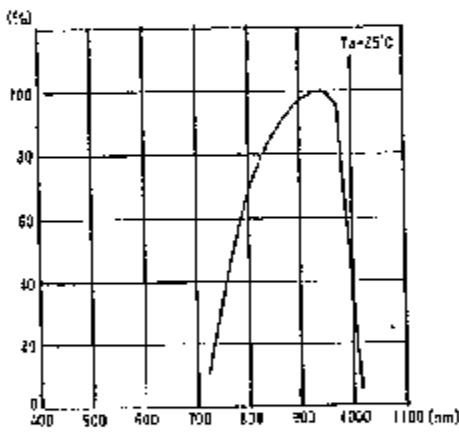
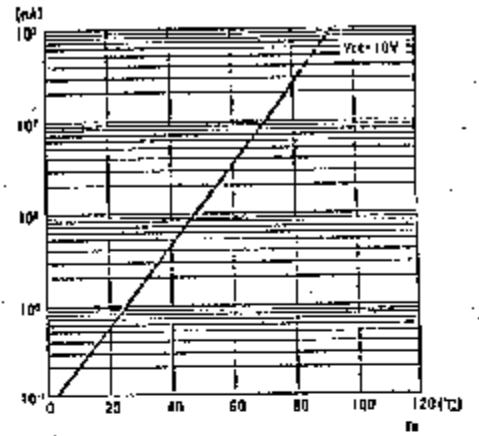
*1. 2mm t=5sec.

DIMENSIONS (Unit:mm)

ELECTRO-OPTICAL CHARACTERISTICS

| ITEM | SYMBOL | CONDITIONS | (T _a = 25°C) | | | UNIT |
|------------------------|----------------------|--|-------------------------|------|------|-------|
| | | | MIN. | TYP. | MAX. | |
| Collector dark current | I _{ceo} | V _{ce} = 10V | | 1 | 100 | μA |
| Light current | I _L | V _{ce} = 3V, 1,000Lux *2 | 0.5 | 5.0 | 20 | μA |
| C-E saturation Voltage | V _{ce(sat)} | I _c = 0.2mA, 2,000Lux *2 | | 0.15 | 0.4 | V |
| Switching speeds | Rise Time | V _{ce} = 10V I _c = 1mA R _L = 100Ω | | 2.5 | | μsec. |
| | Fall Time | | | 3.0 | | μsec. |
| Spectral sensitivity | λ | | 720~1000 | | | nm |
| Peak wavelength | λ _p | | | 800 | | nm |
| Half angle | AO | | | ±15 | | deg. |

*2. = 2856°K

I_c/V_{ce}  I_c/E_v  I_{ce0}/T_a  P_c/T_a 