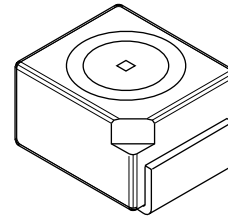
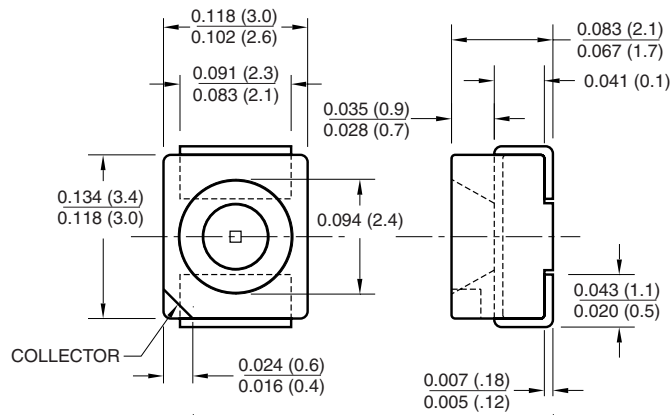


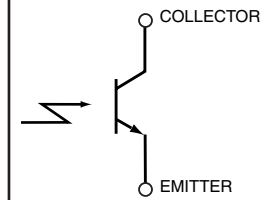
PACKAGE DIMENSIONS



FEATURES

- Surface Mount PLCC-2 Package
- Wide Reception Angle, 120°
- High Sensitivity
- Phototransistor Output
- Matched Emitter: QEB421

SCHEMATIC



NOTES:

1. Dimensions for all drawings are in inches (millimeters).
2. Tolerance of $\pm .010$ (.25) on all non nominal dimensions unless otherwise specified.

NOTES

1. Derate power dissipation linearly 2.2 mW/°C above 25°C.
2. RMA flux is recommended.
3. Methanol or isopropyl alcohols are recommended as cleaning agents.
4. $\lambda = 940$ nm.

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

| Parameter | Symbol | Rating | Unit |
|---|--------------------|----------------|------|
| Operating Temperature | T _{OPR} | -55 to +100 | °C |
| Storage Temperature | T _{STG} | -55 to +100 | °C |
| Soldering Temperature (Flow) ^(2,3) | T _{SOL-F} | 260 for 10 sec | °C |
| Collector Emitter Voltage | V _{CE} | 35 | V |
| Emitter Collector Voltage | V _{EC} | 5 | V |
| Collector Current | I _C | 15 | mA |
| Power Dissipation ⁽¹⁾ | P _D | 165 | mW |

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A = 25°C)

| PARAMETER | TEST CONDITIONS | SYMBOL | MIN | TYP | MAX | UNITS |
|--------------------------------|---|----------------------|-----|-----|------|---------|
| Peak Sensitivity Wavelength | | λ_{PS} | — | 880 | — | nm |
| Wavelength Sensitivity Range | | λ_{SR} | 400 | — | 1000 | nm |
| Reception Angle | | θ | — | 120 | — | Deg. |
| Collector Emitter Dark Current | V _{CE} = 25 V, E _e = 0 | I _D | — | — | 200 | nA |
| Collector Emitter Breakdown | I _C = 1 mA | BV _{CEO} | 30 | — | — | V |
| Emitter Collector Breakdown | I _E = 100 μ A | BV _{ECO} | 5 | — | — | V |
| On-State Collector Current | E _e = 0.1 mW/cm ² (4), V _{CE} = 5 V | I _{C(ON)} | 16 | — | — | μ A |
| Saturation Voltage | E _e = 0.5 mW/cm ² (4), I _C = 0.05 mA | V _{CE(SAT)} | — | — | 0.3 | V |
| Rise Time | V _{CC} = 5 V, R _L = 100 Ω | t _r | — | 8 | — | μ s |
| Fall Time | I _C = 1 mA | t _f | — | 8 | — | μ s |

Fig.1 Dark Current Vs. Ambient Temperature

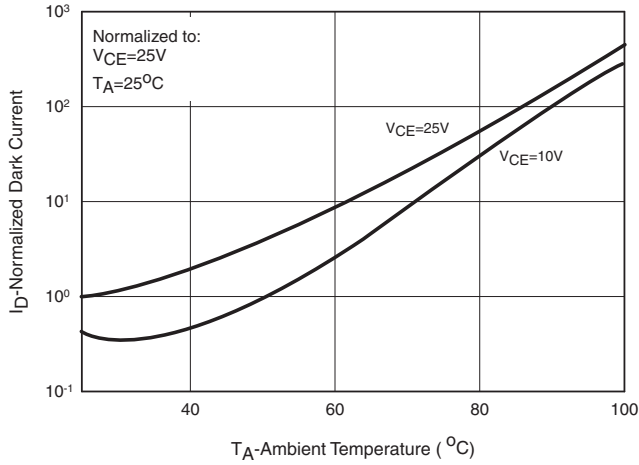


Fig.2 Dark Current Vs. Collector Emitter Voltage

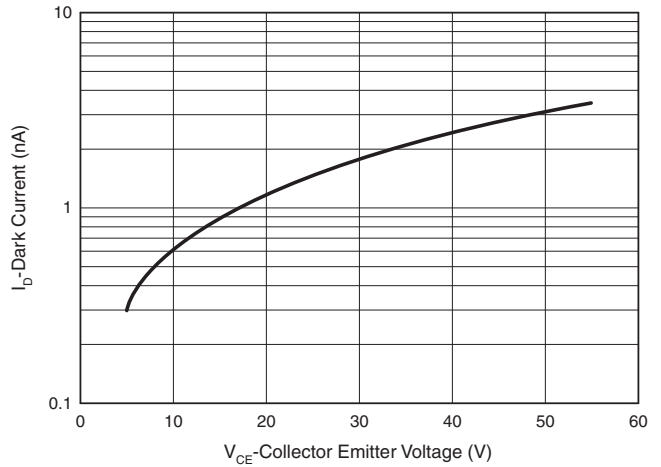


Fig.3 Light Current Vs. Collector to Emitter Voltage

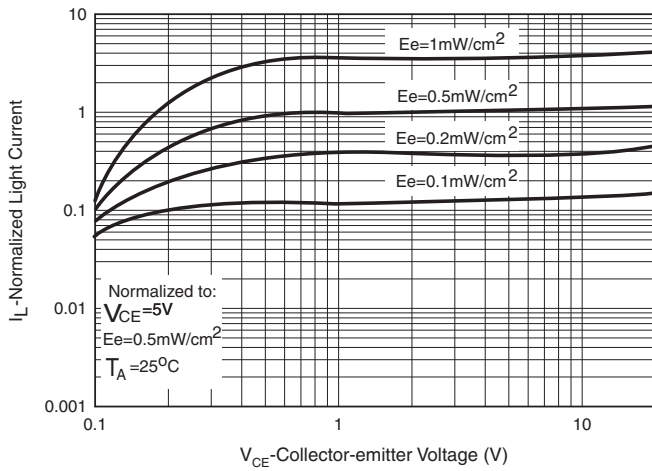
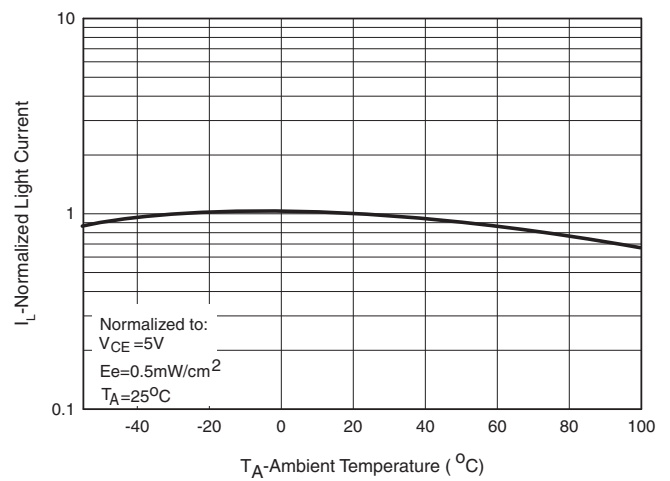


Fig4. Light Current Vs. Ambient Temperature



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