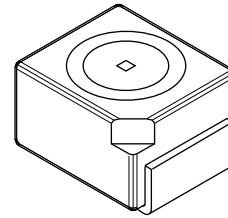
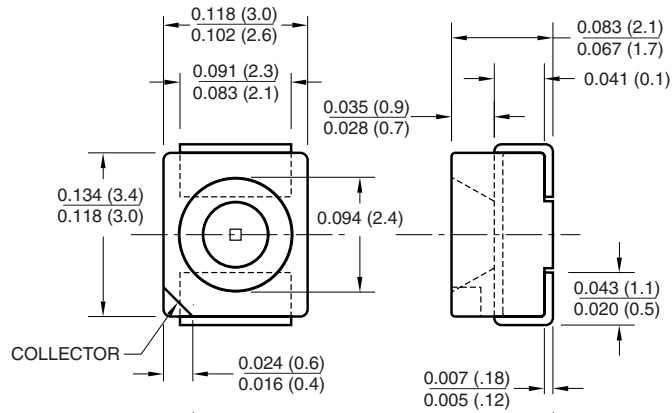


PACKAGE DIMENSIONS



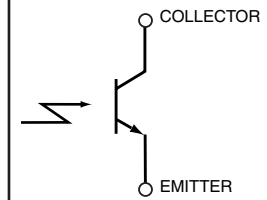
NOTES:

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

FEATURES

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

SCHEMATIC



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

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.

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}	700	—	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

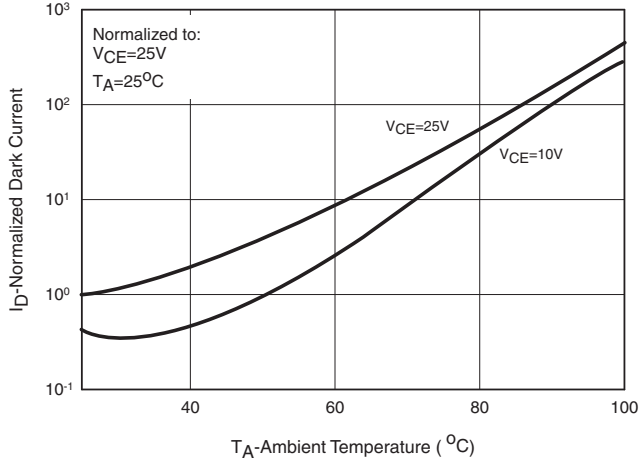


Fig.2 Dark Current Vs. Collector Emitter Voltage

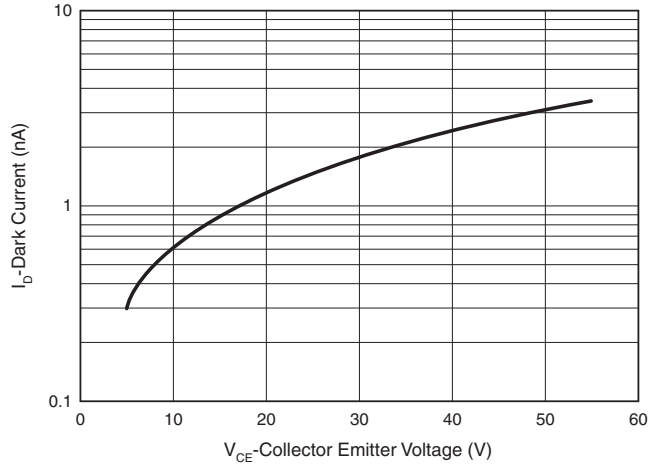


Fig.3 Light Current Vs. Collector to Emitter Voltage

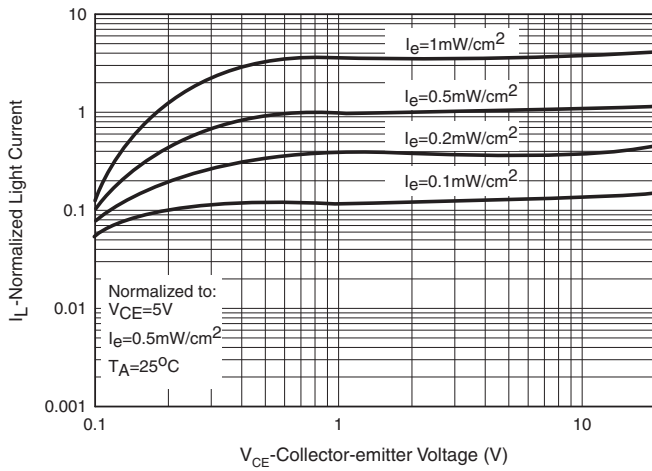
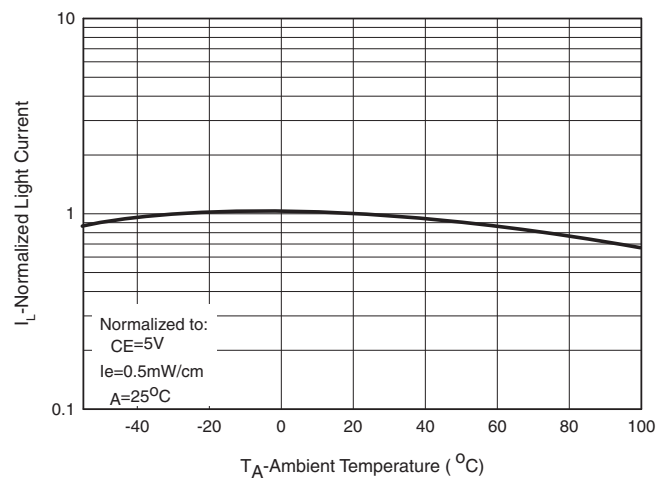


Fig4. Light Current Vs. Ambient Temperature



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