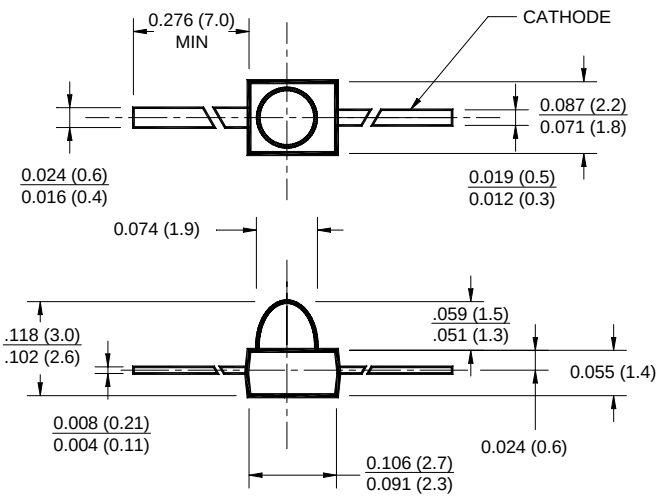
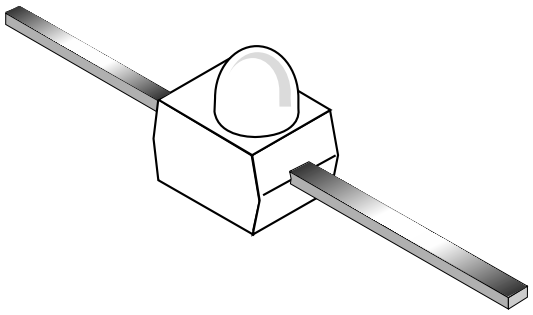
QEB363

SUBMINIATURE PLASTIC INFRARED EMITTING DIODE

PACKAGE DIMENSIONS



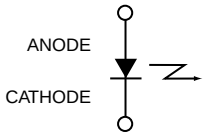
NOTES:
1. Dimensions are in inches (mm).
2. Tolerance of ± .010 (.25) on all non nominal dimensions unless otherwise specified.



FEATURES

- T-3/4 (2mm) Surface Mount Package
- Tape & Reel Option (See Tape & Reel Specifications)
- Lead Form Options: Gullwing, Yoke, Z-Bend
- Narrow Emission Angle, 24°
- Wavelength = 940 nm, GaAs
- Pink Tinted Lens
- Matched Photosensor: QSB363
- High Radiant Intensity

SCHEMATIC



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

Parameter	Symbol	Rating	Units
Operating Temperature	T_{OPR}	-40 to +100	°C
Storage Temperature	T_{STG}	-40 to +100	°C
Soldering Temperature (Iron)(2,3,4)	T_{SOL-I}	240 for 5 sec	°C
Soldering Temperature (Flow)(2,3)	T_{SOL-F}	260 for 10 sec	°C
Continuous Forward Current	I_F	50	mA
Reverse Voltage	V_R	5	V
Power Dissipation(1)	P_D	100	mW

NOTES

1. Derate power dissipation linearly 1.33 mW/°C above 25°C.
2. RMA flux is recommended.
3. Methanol or isopropyl alcohols are recommended as cleaning agents.
4. Soldering iron tip at 1/16" (1.6mm) from housing

ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C)

PARAMETER	TEST CONDITIONS	SYMBOL	MIN.	TYP.	MAX.	UNITS
Peak Emission Wavelength	I_F = 100 mA	λ_P	—	940	—	nm
Emission Angle	I_F = 100 mA	Θ	—	±12	—	Deg.
Forward Voltage	I_F = 100 mA, t_P = 20 ms	V_F	—	—	1.6	V
Reverse Current	V_R = 5 V	I_R	—	—	100	μA
Radiant Intensity	I_F = 100 mA, t_P = 20 ms	I_e	8	—	—	mW/sr
Rise Time	I_F = 100 mA,	t_r	—	1	—	μs
Fall Time	t_P = 20 ms	t_f	—	1	—	μs

TYPICAL PERFORMANCE CURVES

Fig. 1 Maximum Forward Current vs. Temperature

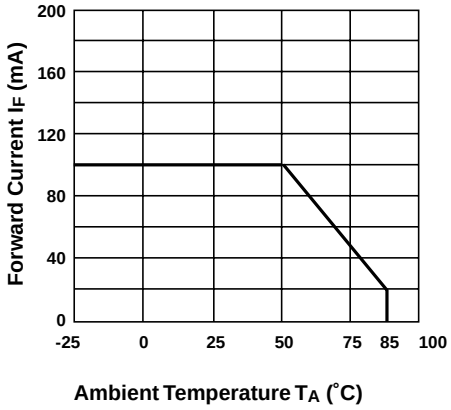


Fig. 2 Relative Radiant Intensity vs. Wavelength

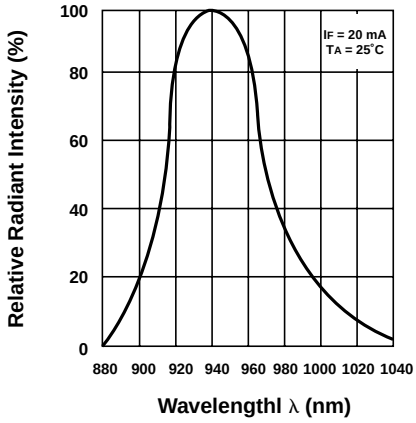


Fig. 3 Peak Emission Wavelength vs. Ambient Temperature

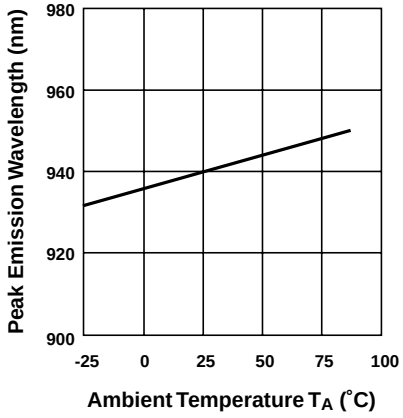


Fig. 4 Forward Current vs. Forward Voltage

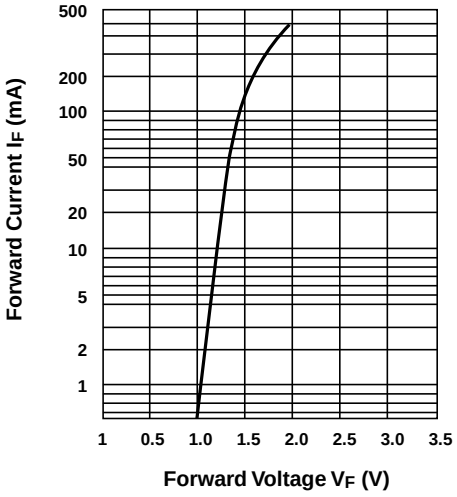


Fig. 5 Relative Radiant Flux vs. Ambient Temperature

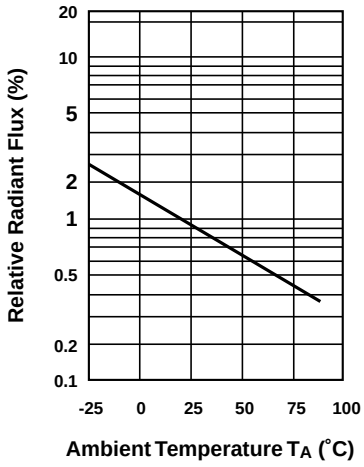
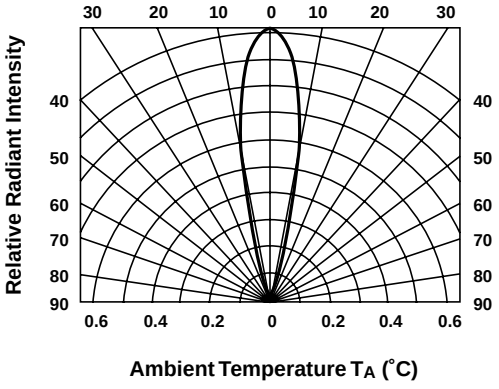
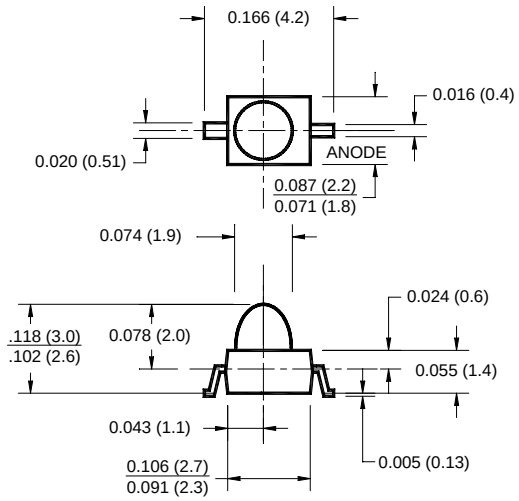


Fig. 6 Relative Radiant Intensity vs. Angular Displacement



SURFACE MOUNT OPTIONS
T-3/4 PACKAGES

GULL WING LEAD CONFIGURATION

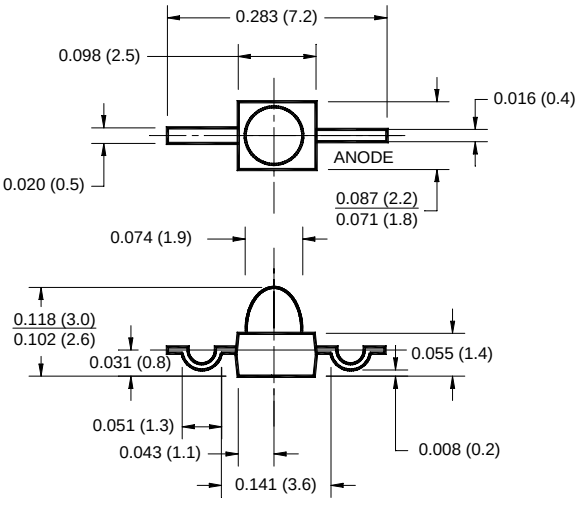


FEATURES

- Three lead forming options: Gull Wing, Yoke and Z-Bend
- Compatible with automatic placement equipment
- Supplied on tape and reel or in bulk packaging
- Compatible with vapor phase reflow solder processes

NOTES: (Applies to all package drawings)
1. Dimensions are in inches (mm).
2. Tolerance of ± .010 (.25) on all non nominal dimensions unless otherwise specified.

YOKE LEAD CONFIGURATION



Z-BEND LEAD CONFIGURATION