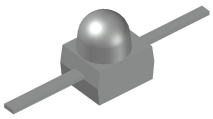
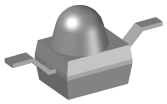
Subminiature Plastic Infrared Emitting Diode

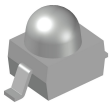
QEB373



T−3/4, 2.50 × 2.00
CASE 100EE



T−3/4, 2.50 × 2.00
CASE 100EG

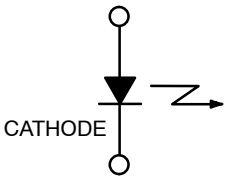


T−3/4, 2.50 × 2.00
CASE 100EF

Features

- T−3/4 (2 mm) Surface Mount Package
- Lead Form Options: Gullwing, Yoke, Z−Bend
- Narrow Emission Angle, 24°
- Wavelength = 875 nm, AlGaAs
- Clear Lens
- Matched Photosensor: QSB363
- High Radiant Intensity
- This is a Pb−Free and Halide Free Device

SCHEMATIC



ORDERING INFORMATION

See detailed ordering and shipping information on page 3 of this data sheet.

MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

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

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

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 1/16” (1.6 mm) minimum from housing.

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
λ_P	Peak Emission Wavelength	I_F = 100 mA	–	875	–	nm
Θ	Emission Angle	I_F = 100 mA	–	±12	–	°
V_F	Forward Voltage	I_F = 100 mA, t_p = 20 ms	–	–	1.7	V
I_R	Reverse Current	V_R = 5 V	–	–	100	μA
I_e	Radiant Intensity	I_F = 100 mA, t_p = 20 ms	16	–	–	mW/sr
t_r	Rise Time	I_F = 100 mA	–	800	–	ns
t_f	Fall Time	t_p = 20 ms	–	800	–	ns

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

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TYPICAL PERFORMANCE CURVES

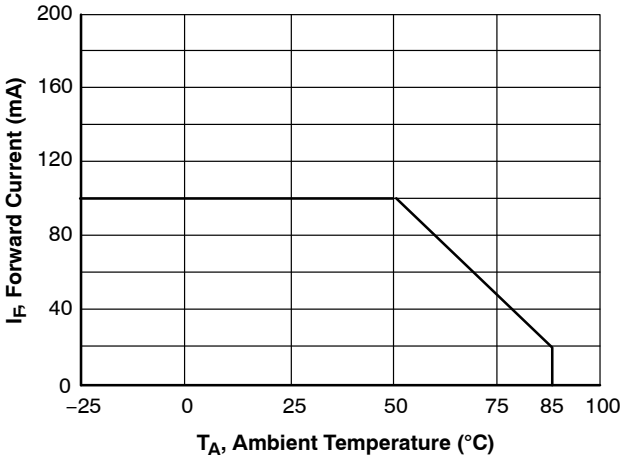


Figure 1. Maximum Forward Current vs. Temperature

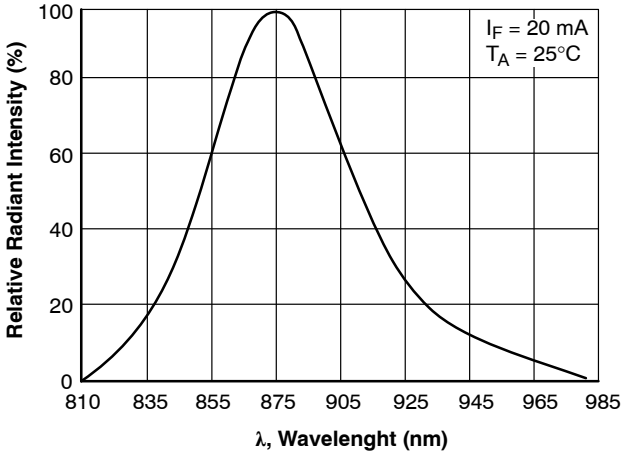


Figure 2. Relative Radiant Intensity vs. Wavelenght

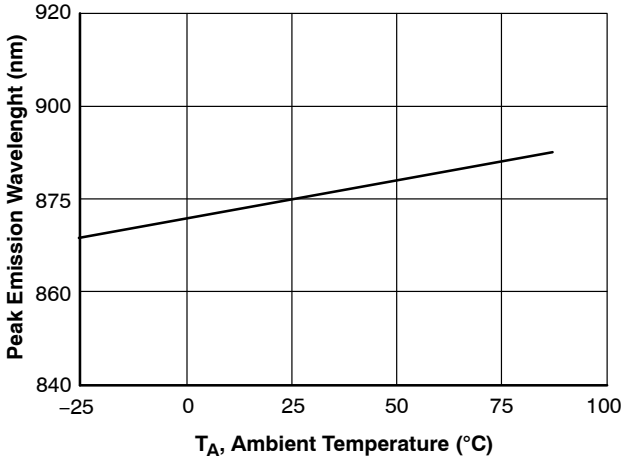


Figure 3. Peak Emission Wavelenght vs. Ambient Temperature

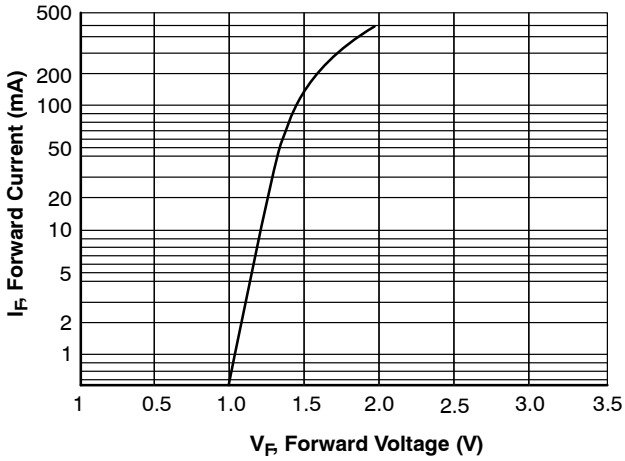


Figure 4. Forward Current vs. Forward Voltage

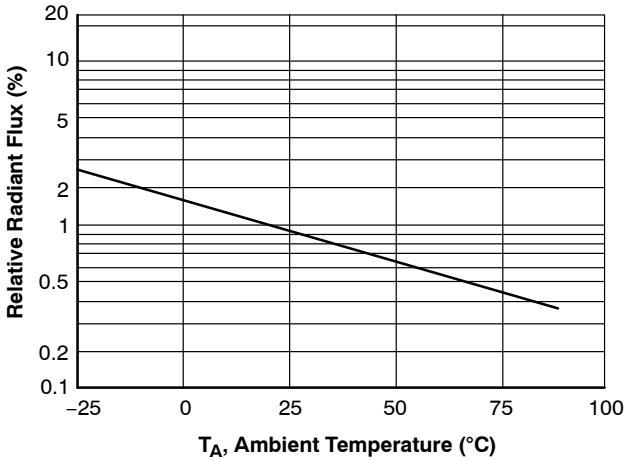


Figure 5. Relative Radiant Flux vs. Ambient Temperature

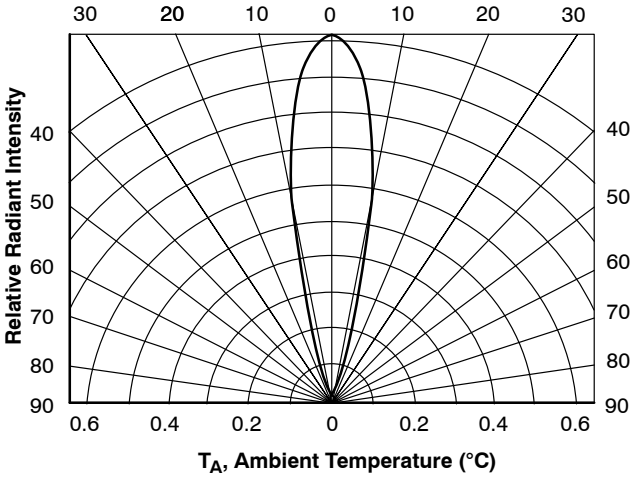
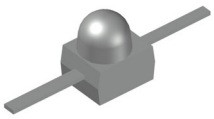


Figure 6. Relative Radiant Intensity vs. Angular Displacement

ORDERING INFORMATION

Part Number	Package	Shipping†
QEB373	T−3/4, 2.50 × 2.00 (Case 100EE) (Pb−Free)	1000 Units / Bulk
QEB373GR	T−3/4, 2.50 × 2.00 (Case 100EF) (Pb−Free)	1000 / Tape & Reel
QEB373ZR	T−3/4, 2.50 × 2.00 (Case 100EG) (Pb−Free)	1000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

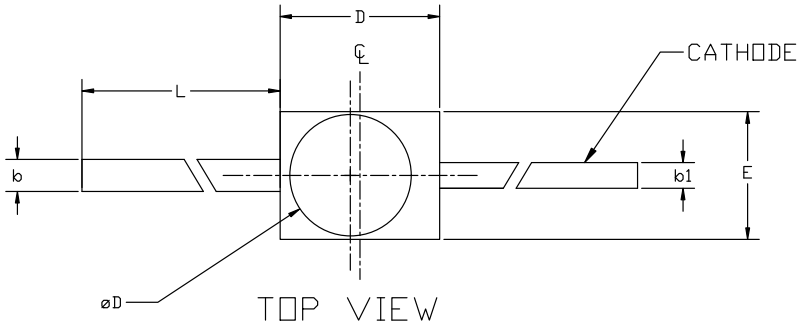


T−3/4 2.50x2.00
CASE 100EE
ISSUE O

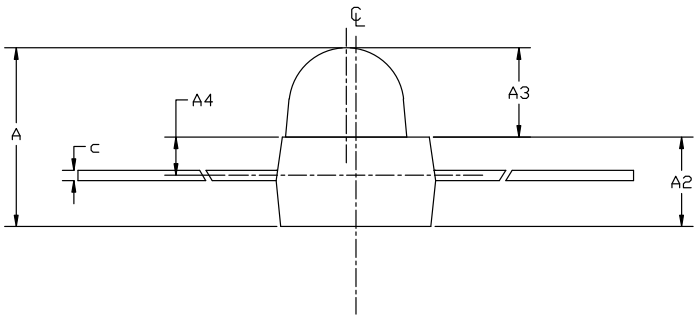
DATE 14 SEP 2023

NOTES:

1. CONTROLLING DIMENSIONS: MILLIMETERS
2. DIMENSIONS DO NOT INCLUDE MOLD FLASH OR BURRS.
3. 2MM LED RP



TOP VIEW

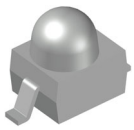


FRONT VIEW

DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	2.50	2.70	2.90
A2	1.30	1.40	1.50
A3	1.30	1.40	1.50
A4	0.60 REF		
b	0.45	0.55	0.65
b1	0.35	0.45	0.55
c	0.10	0.15	0.25
D	2.30	2.50	2.70
E	1.80	2.00	2.20
L	7.00	---	---
øD	1.70	1.90	2.10

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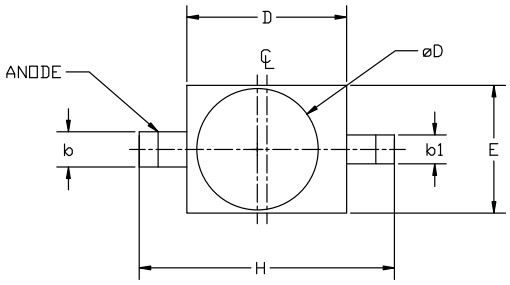


T−3/4 2.50x2.00
CASE 100EF
ISSUE O

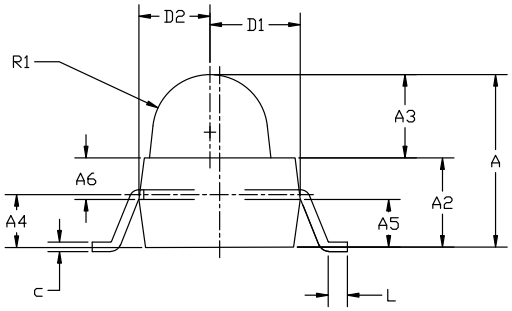
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NOTES:

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2. DIMENSIONS DO NOT INCLUDE MOLD FLASH OR BURRS.
3. 2MM GULLWING LED RP

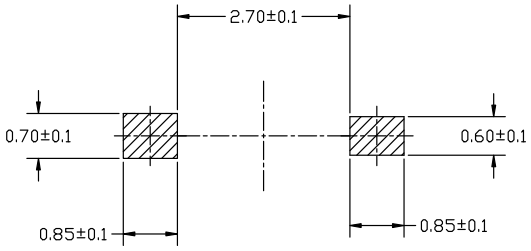


TOP VIEW



FRONT VIEW

DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	2.50	2.70	2.90
A2	1.30	1.40	1.50
A3	1.20	1.30	1.40
A4	0.75	0.85	0.95
A5	0.65	0.75	0.85
A6	0.55	0.65	0.75
b	0.45	0.55	0.65
b1	0.35	0.45	0.55
c	0.10	0.15	0.20
D	2.30	2.50	2.70
D1	1.20	1.40	1.60
D2	0.90	1.10	1.30
E	1.80	2.00	2.20
H	3.80	4.00	4.20
L	0.20	0.30	0.40
øD	1.70	1.90	2.10
R1	0.70	0.80	0.90

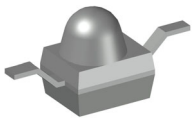


LAND PATTERN
RECOMMENDATION

* For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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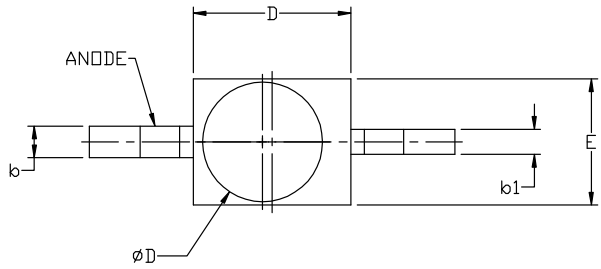


T−3/4 2.50x2.00
CASE 100EG
ISSUE O

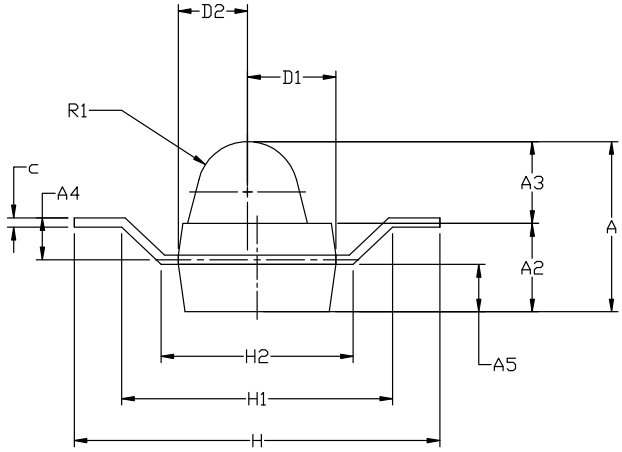
DATE 14 SEP 2023

NOTES:

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2. DIMENSIONS DO NOT INCLUDE MOLD FLASH OR BURRS.
3. 2MM ZBEND LED RP.

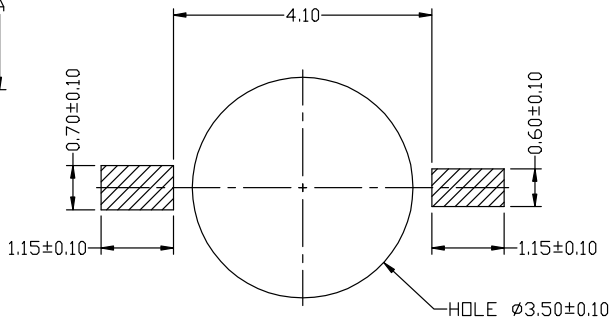


TOP VIEW



BOTTOM VIEW

DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	2.500	2.700	2.900
A2	1.300	1.400	1.500
A3	1.200	1.300	1.400
A4	0.550	0.650	0.750
A5	0.650	0.750	0.850
b	0.450	0.550	0.650
b1	0.350	0.450	0.550
c	0.100	0.150	0.200
D	2.300	2.500	2.700
D1	1.200	1.400	1.600
D2	0.900	1.100	1.300
E	1.800	2.000	2.200
H	5.600	5.800	6.000
H1	4.100	4.300	4.500
H2	2.850	3.050	3.250
øD	1.700	1.900	2.100
R1	0.700	0.800	0.900



RECOMMENDED MOUNTING FOOTPRINT*

*FOR ADDITIONAL INFORMATION ON OUR Pb−FREE STRATEGY AND SOLDERING DETAILS, PLEASE DOWNLOAD THE ON SEMICONDUCTOR SOLDERING AND MOUNTING TECHNIQUES REFERENCE MANUAL, SOLDERRM/D.

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