Subminiature Plastic Infrared Emitting Diode

QEB363

Features

- T−3/4 (2 mm) Surface Mount Package
- Lead Form Options: Gullwing, Yoke, Z−Bend
- Narrow Emission Angle, 24°
- Wavelength = 940 nm, GaAs
- Clear Water Lens
- Matched Photosensor: QSB363
- High Radiant Intensity
- This is a Pb−Free and Halide Free Device

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.

TYPICAL PERFORMANCE CURVES

0
−25

T_A, Ambient Temperature (

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

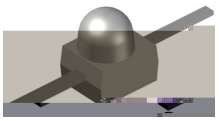
Figure 5. Transfer Characteristics

Figure 6. Relative Radiant Intensity vs. Angular Displacement

ORDERING INFORMATION

Part Number	Package	Shipping†
QEB363	T−3/4, 2.50 × 2.00 (Case 100CA) (Pb−Free)	1000 Units / Bulk
QEB363GR	T−3/4, 2.50 × 2.00 (Case 100CV) (Pb−Free)	1000 / Tape & Reel
QEB363YR	T−3/4, 2.50 × 2.00 (Case 100ED) (Pb−Free)	1000 / Tape & Reel
QEB363ZR	T−3/4, 2.50 × 2.00 (Case 100CW) (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 100CA
ISSUE A

DATE 14 SEP 2023

IONS DO NOT INCLUDE MOLD FLASH OR BURRS.

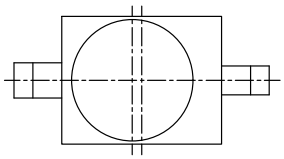
3. 2MM LED

DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	2.50	2.70	2.90
A2			
A3			
A4			
b	0.45	0.55	0.65
b1	0.35	0.45	0.5
c		0.15	
D		2.50	
E		2.00	
L			

T-3/4, 2.50x2.00

NOTES:

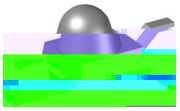
1. CONTROLLING DIM



TOP VIEW

FRONT VIEW

LAND PATTERN
RECOMMENDATION

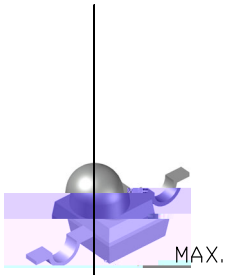


T−3/4, 2.50x2.00
CASE 100CW
ISSUE A

DATE 14 SEP 2023

RECOMMENDED MOUNTING FOOTPRINT*

*FOR ADDITIONAL INFORMATION ON OUR Pb−FREE STRATEGY AND SOLDERING DETAILS, PLEASE DOWNLOAD THE ON SEMICONDUCTOR SOLDERING AND MOUNTING TECHNIQUES REFERENCE M



NOTES:

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b	0.55
b1	0

	2.50	2.70	2.90
A2	1.30	1.40	1.50
	1.20		1.40
A4	0.65	0.75	0.85
	0.45		0.65
	0.35	.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	7.20	7.40	7.60
H1	4.5	4.70	
⌀D	1.70	1.90	2.10
R1	0.70	0.80	0.90
R2	0.30	0.40	0.50