

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 ($T_A = 25^\circ\text{C}$ 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.

QEB363

TYPICAL PERFORMANCE CURVES

0
-25

T_A , Ambient Temperature (

Figure 1. Maximum Forward Current vs. Temperature

Figure 2. Relative Radiant Intensity vs. Wavelength

Figure 3. Peak Emission Wavelength vs. Ambient Temperature

Figure 4. Forward Current vs. Forward Voltage

Figure 5. Transfer Characteristics

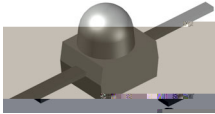
Figure 6. Relative Radiant Intensity vs. Angular Displacement

QEB363

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

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

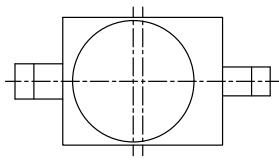
DIM	MILLIMETERS		
	MIN.	NOM.	MAX.
A	2.50	2.70	2.90
A2			
A3			
A4			
b	0.45	0.55	0.65
b1	0.35	0.45	0.5
c		0.15	
D		2.50	
E		2.00	
L			



T-3/4, 2.50x2.00

NOTES:

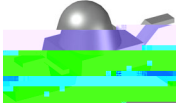
1. CONTROLLING DIM



TOP VIEW

FRONT VIEW

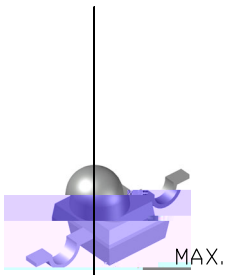
LAND PATTERN
RECOMMENDATION



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:

30

b
b1

0.55
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	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	7.20	7.40	7.60
H1	4.50	4.70	
∅D	1.70	1.90	2.10
R1	0.70	0.80	0.90
R2	0.30	0.40	0.50

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