Plastic Infrared Light Emitting Diode

QED234

T−1 3/4, 5MM LED
CASE 100CC

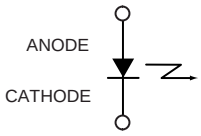
Description

The QED234 is a 940 nm GaAs / AlGaAs LED encapsulated in a clear untinted, plastic T−1 3/4 package.

Features

- λ = 940 nm
- Chip Material = GaAs with AlGaAs Window
- Package Type: T−1 3/4 (5 mm lens diameter)
- Matched Photosensor: QSD123/124
- Medium Emission Angle, 40°
- High Output Power
- Package Material and Color: Clear, Untinted, Plastic
- Ideal for Remote Control Applications
- This is a Pb−Free Device

CONNECTION DIAGRAM



ORDERING INFORMATION

Device	Package	Shipping†
QED234	T 1 3/4,5MM LED (Pb Free)	250 / Bulk Bag

†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.

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
T_{OPR}	Operating Temperature	40 to +100	°C
T_{STG}	Storage Temperature	40 to +100	°C
	Soldering Temperature (Flow) (Note 2) (Note 3)	260 for 10 s	°C
I_F	Continuous Forward Current	100	mA
V_R	Reverse Voltage	5	V
P_D	Power Dissipation (Note 1)	200	mW
I_{FP}	Peak Forward Current	1.5	A

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.

1. Derate power dissipation linearly 2.67 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.
5. Pulse conditions; tp = 100 μs, T = 10 ms

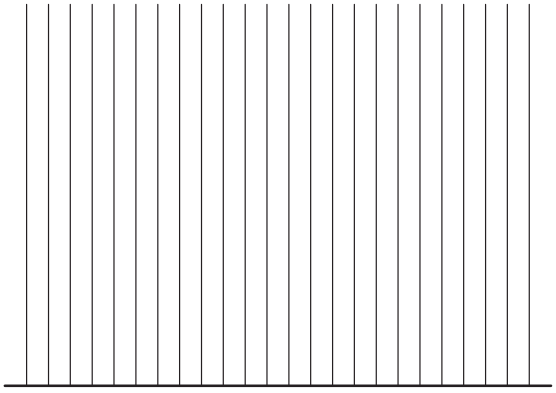
ELECTRICAL / OPTICAL CHARACTERISTICS

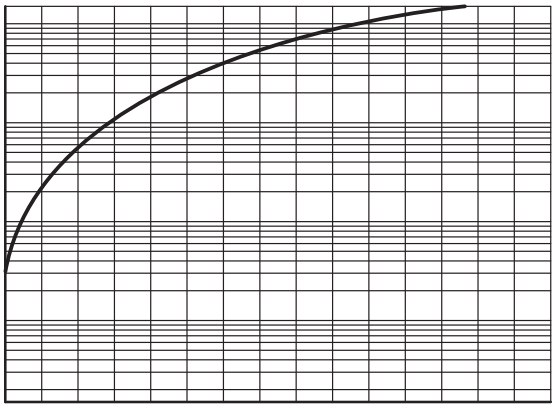
Values are at T_A = 25°C unless otherwise noted.

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
λ_{PE}	Peak Emission Wavelength	I_F = 20 mA		940		nm
	Spectral Bandwidth	I_F = 20 mA	50			nm
TC_λ	Temp. Coefficient of λ_{PE}	I_F = 100 mA		0.2		nm/K
$2\Theta_{1/2}$	Emission Angle	I_F = 100 mA		40		°
V_F	Forward Voltage	I_F = 100 mA, tp = 20 ms			1.6	V
TC_V	Temp. Coefficient of V_F	I_F = 100 mA		1.5		mV/K
I_R	Reverse Current	V_R = 5 V			10	ns
I_E	Radiant Intensity	I_F = 100 mA, tp = 20 ms	27			ns
TC_I	Temp. Coefficient of I_E	I_F = 20 mA		0.6		ns
t_r	Rise Time	I_F = 100 mA		1000		ns
t_f	Fall Time			1000		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.

TYPICAL CHARACTERISTICS





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ISSUE O

DATE 30 NOV 2016

Notes:
1. Dimensions f