

阅读申明

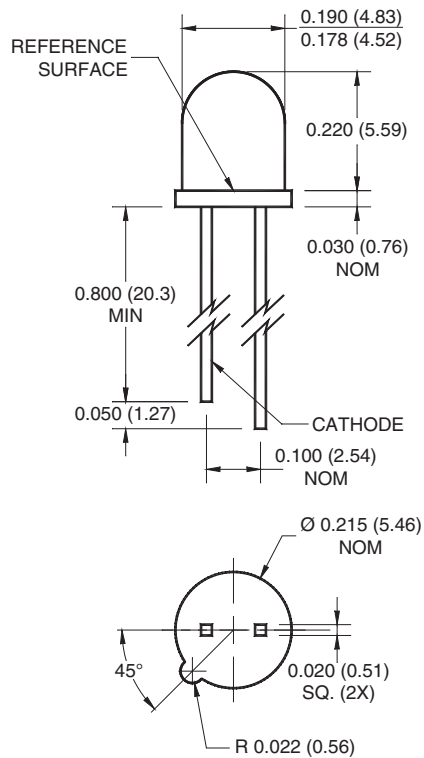
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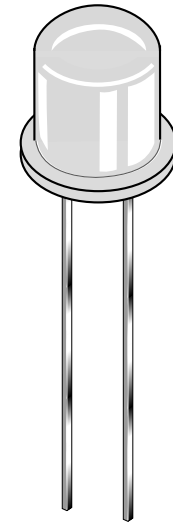
QED522 QED523

PACKAGE DIMENSIONS

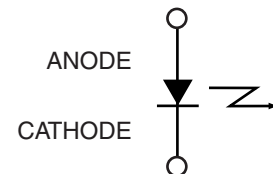


NOTES:

1. Dimensions for all drawings are in inches (mm).
2. Tolerance of $\pm .010$ (.25) on all non-nominal dimensions unless otherwise specified.



SCHEMATIC



DESCRIPTION

The QED522/523 is an 880 nm AlGaAs LED encapsulated in a clear, peach tinted, plastic TO-46 package.

FEATURES

- $\lambda = 880$ nm
- Chip material = AlGaAs
- Package type: Plastic TO-46
- Matched Photosensor: QSD722/723/724
- Narrow Emission Angle, 20°
- High Output Power
- Package material and color: clear, peach tinted, plastic

QED522 QED523

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Operating Temperature	T_{OPR}	-40 to + 100	$^\circ\text{C}$
Storage Temperature	T_{STG}	-40 to + 100	$^\circ\text{C}$
Soldering Temperature (Iron) ^(2,3,4)	$T_{\text{SOL-I}}$	240 for 5 sec	$^\circ\text{C}$
Soldering Temperature (Flow) ^(2,3)	$T_{\text{SOL-F}}$	260 for 10 sec	$^\circ\text{C}$
Continuous Forward Current	I_F	100	mA
Reverse Voltage	V_R	5	V
Power Dissipation ⁽¹⁾	P_D	200	mW

NOTES:

1. Derate power dissipation linearly 2.67 mW/ $^\circ\text{C}$ 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 / OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Units
Peak Emission Wavelength	$I_F = 100 \text{ mA}$	λ_{PE}	—	880	—	nm
Emission Angle	$I_F = 100 \text{ mA}$	$2\theta_{1/2}$	—	20	—	Deg.
Forward Voltage	$I_F = 100 \text{ mA}$, $t_p = 20 \text{ ms}$	V_F	—	—	1.8	V
Reverse Current	$V_R = 5 \text{ V}$	I_R	—	—	10	μA
Radiant Intensity QEC522	$I_F = 100 \text{ mA}$, $t_p = 20 \text{ ms}$	I_E	20	—	80	mW/sr
Radiant Intensity QEC523	$I_F = 100 \text{ mA}$, $t_p = 20 \text{ ms}$	I_E	40	—	—	mW/sr
Rise Time	$I_F = 100 \text{ mA}$	t_r	—	800	—	ns
Fall Time		t_f	—	800	—	ns

Fig. 1 Normalized Radiant Intensity vs. Forward Current

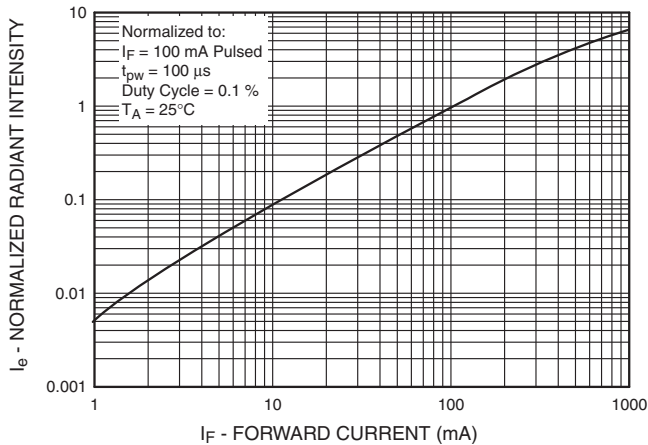


Fig. 2 Forward Voltage vs. Ambient Temperature

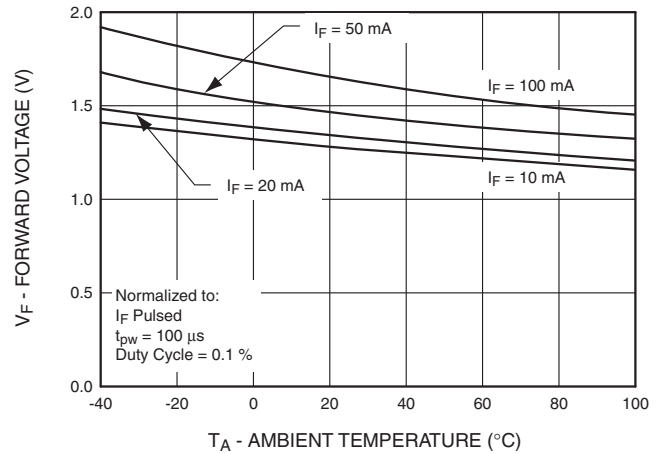


Fig. 3 Normalized Radiant Intensity vs. Wavelength

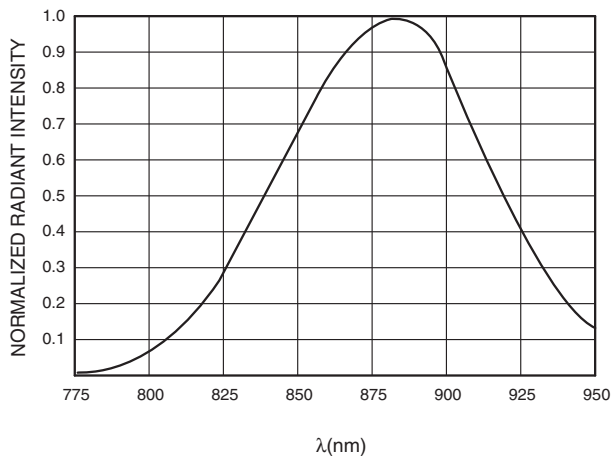
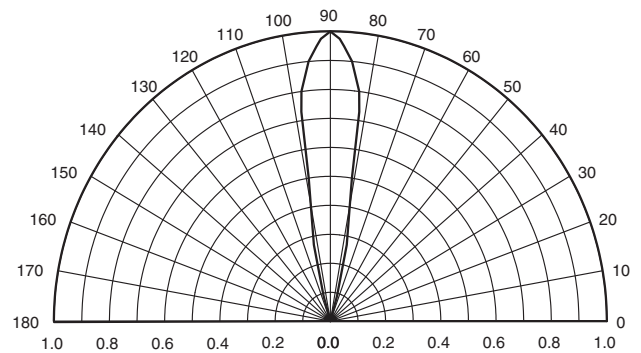


Fig. 4 Radiation Diagram



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