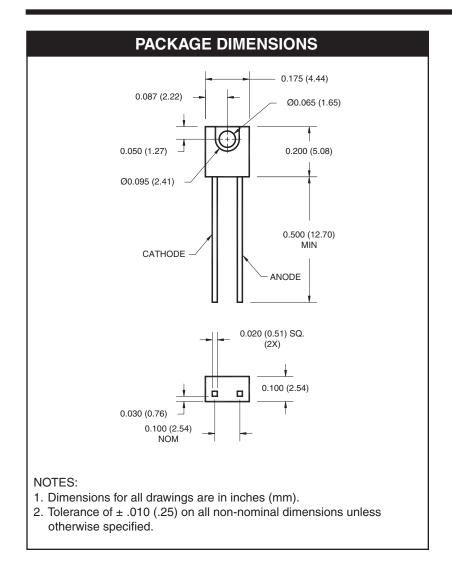
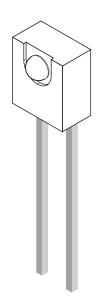
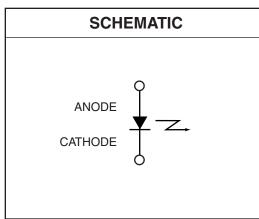


### **QEE113**







### **DESCRIPTION**

The QEE113 is a 940 nm GaAs LED encapsulated in a medium wide angle, plastic sidelooker package.

#### **FEATURES**

- $\lambda = 940 \text{ nm}$
- Package Type = Sidelooker
- Chip Material = GaAs
- Matched Photosensor: QSE113
- Medium Wide Emission Angle, 50°
- · Package Material: Clear Epoxy
- High Output Power
- · Gray stripe on the top side



### **QEE113**

ABSOLUTE MAXIMUM RATINGS (T <sub>A</sub> = 25°C unless otherwise specified)								
Parameter	Symbol	Rating	Unit					
Operating Temperature	T <sub>OPR</sub>	-40 to +100	°C					
Storage Temperature	T <sub>STG</sub>	-40 to +100	°C					
Soldering Temperature (Iron) <sup>(2,3,4)</sup>	T <sub>SOL-I</sub>	240 for 5 sec	°C					
Soldering Temperature (Flow) <sup>(2,3)</sup>	T <sub>SOL-F</sub>	260 for 10 sec	°C					
Continuous Forward Current	I <sub>F</sub>	50	mA					
Reverse Voltage	V <sub>R</sub>	5	V					
Power Dissipation <sup>(1)</sup>	P <sub>D</sub>	100	mW					

#### **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 / OPTICAL CHARACTERISTICS (T <sub>A</sub> =25°C)									
Parameter	Test Conditions	Symbol	Min	Тур	Max	Units			
Peak Emission Wavelength	I <sub>F</sub> = 100 mA	$\lambda_{PE}$	_	940	_	nm			
Emission Angle	I <sub>F</sub> = 100 mA	201/2	_	50	_	Deg.			
Forward Voltage	$I_F = 100 \text{ mA}, \text{ tp} = 20 \text{ ms}$	V <sub>F</sub>	_	_	1.5	V			
Reverse Current	V <sub>R</sub> = 5 V	I <sub>R</sub>	_	_	10	μΑ			
Radiant Intensity	$I_F = 100 \text{ mA}, \text{ tp} = 20 \text{ ms}$	ΙE	3	_	12	mW/sr			
Rise Time	I <sub>F</sub> = 100 mA	t <sub>r</sub>	_	1000	_	ns			
Fall Time		t <sub>f</sub>	_	1000	_	ns			



### **QEE113**

Fig.1 Normalized Radiant Intensity vs. Forward Current

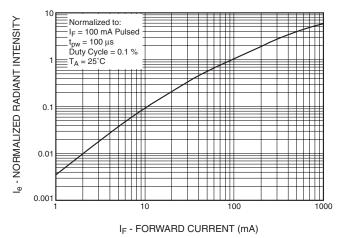


Fig.2 Coupling Characteristics of QEE113 And QSE113

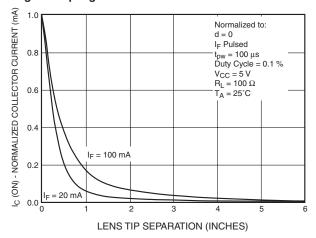


Fig.3 Forward Voltage vs. Ambient Temperature

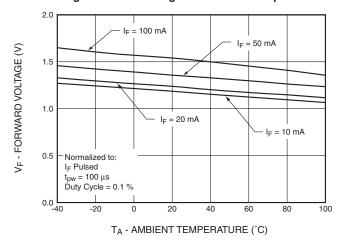


Fig. 4 Normalized Intensity vs. Wavelength

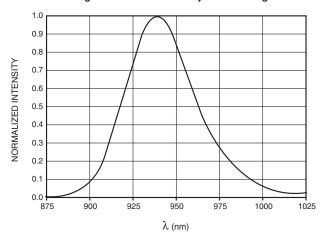
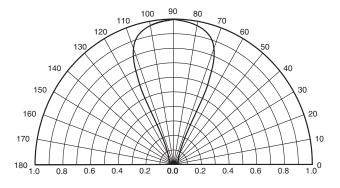


Fig. 5 Radiation Diagram





**QEE113** 

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- A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.