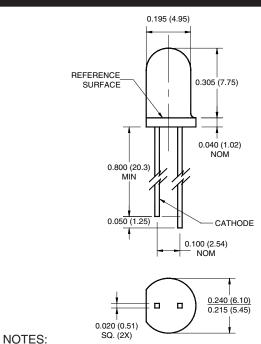


QED121/122/123

PLASTIC INFRARED LIGHT EMITTING DIODE

PACKAGE DIMENSIONS



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

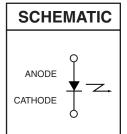
FEATURES

- λ = 880 nm
- Chip material = AlGaAs
- Package type: T-1 3/4 (5mm lens diameter)
- Matched Photosensor: QSD122/123/124
- Narrow Emission Angle, 18°
- High Output Power
- Package material and color: Clear, peach tinted, plastic



- 2. RMA flux is recommended.
- 3. Methanol or isopropyl alcohols are recommended as cleaning agents.
- 4. Soldering iron 1/16" (1.6mm) minimum from housing.





ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit	
Operating Temperature	T _{OPR}	-40 to +100	°C	
Storage Temperature	T _{STG}	-40 to +100	°C	
Soldering Temperature (Iron)(2,3,4)	T _{SOL-I}	240 for 5 sec	°C	
Soldering Temperature (Flow)(2,3)	T _{SOL-F}	260 for 10 sec	°C	
Continuous Forward Current	I _F	100	mA	
Reverse Voltage	V _R	5	V	
Power Dissipation ⁽¹⁾	P _D	200	mW	

ELECTRICAL / OPTICAL CHARACTERISTICS (TA =25°C)

PARAMETER	TEST CONDITIONS	SYMBOL	MIN	TYP	MAX	UNITS
Peak Emission Wavelength	$I_F = 20 \text{ mA}$	λ_{PE}	_	880	_	nm
Emission Angle	I _F = 100 mA	Ө	_	±9	_	Deg.
Forward Voltage	$I_F = 100 \text{ mA}, \text{ tp} = 20 \text{ ms}$	V _F	_	_	1.7	V
Reverse Current	V _R = 5 V	I _R	_	_	10	μA
Radiant Intensity QED121	$I_F = 100 \text{ mA}, \text{ tp} = 20 \text{ ms}$	Ι _Ε	16	_	40	mW/sr
Radiant Intensity QED122	$I_F = 100 \text{ mA}, \text{ tp} = 20 \text{ ms}$	Ι _Ε	32	_	100	mW/sr
Radiant Intensity QED123	$I_F = 100 \text{ mA}, \text{ tp} = 20 \text{ ms}$	I _E	50	_	_	mW/sr
Rise Time	I _F = 100 mA	t _r	_	800	_	ns
Fall Time		t_f	_	800	_	ns



QED121/122/123

PLASTIC INFRARED LIGHT EMITTING DIODE

TYPICAL PERFORMANCE CURVES

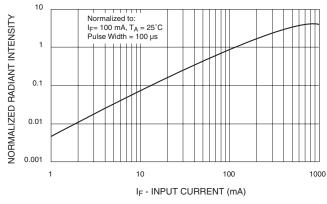


Fig. 1 Normalized Radiant Intensity vs. Input Current

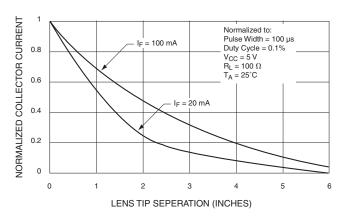


Fig. 2 Coupling Characteristics of QED12X and QSD12X

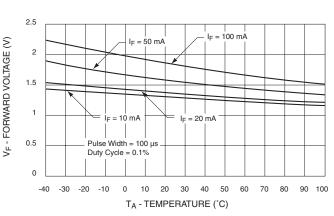


Fig. 3 Forward Voltage vs. Temperature

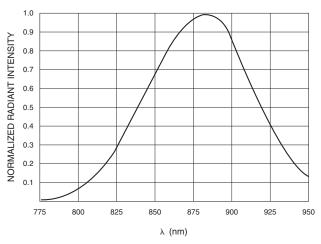
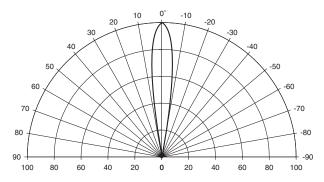


Fig. 4 Normalized Radiant Intensity vs. Wavelength







QED121/122/123 PLASTIC INFRARED LIGHT EMITTING DIODE

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