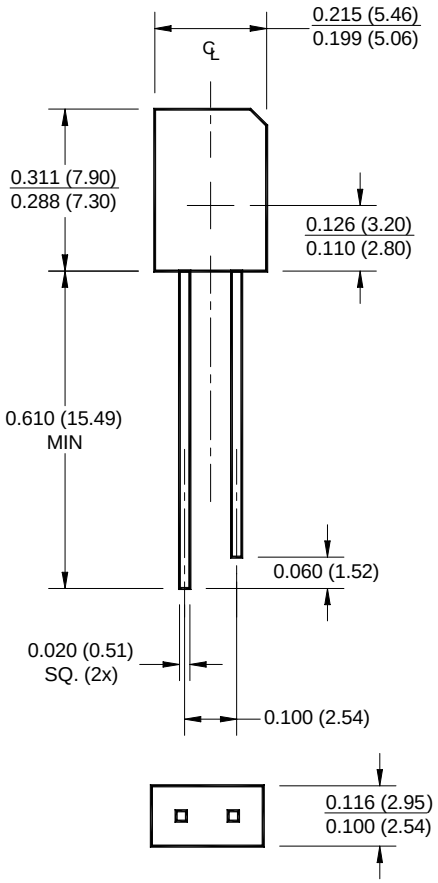
QSE773
PLASTIC SILICON PIN PHOTODIODE

OPTOELECTRONICS

PACKAGE DIMENSIONS

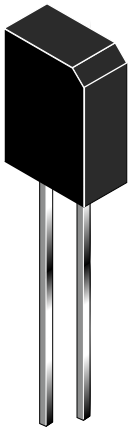


NOTES:

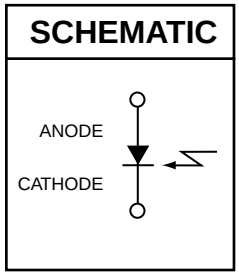
1. Dimensions for all drawings are in inches (mm).
2. Tolerance of ± .010 (.25) on all non-nominal dimensions unless otherwise specified.

FEATURES

- Daylight Filter
- Sidelooker Package
- Pin Photodiode
- Wide Reception Angle, 120°
- Chip Size = $.107^2$ inches (2.71^2 mm)



SCHEMATIC



1. Derate power dissipation linearly 2.50 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" (1.6mm) minimum from housing.
5. As long as leads are not under any stress or spring tension.
6. Light source is an GaAs LED which has a peak emission wavelength of 940 nm.
7. All measuements made under pulse conditions.

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

Parameter	Symbol	Rating	Unit
Operating Temperature	T_{OPR}	-40 to +85	°C
Storage Temperature	T_{STG}	-40 to +85	°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
Reverse Voltage	V_R	32	V
Power Dissipation(1)	P_D	150	mW

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ELECTRICAL / OPTICAL CHARACTERISTICS (T_A =25°C unless otherwise specified)

PARAMETER	TEST CONDITIONS	SYMBOL	MIN	TYP	MAX	UNITS
Reverse Voltage	I_R = 0.1 mA	V_R	32		—	V
Dark Reverse Current	V_R = 10 V	$I_{R(D)}$	—		30	nA
Peak Sensitivity	V_R = 5 V	λ_{PK}		920		nm
Reception Angle @ 1/2 Power		Θ		+/-60		Degrees
Photo Current	E_e = 1.0 mW/cm^2, V_{CE} = 5 V(6)	I_{PH}	30		—	µA
Capacitance	V_R = 3 V	C		20		pF
Rise Time	V_R = 5 V, R_L = 1 K	t_r		50		ns
Fall Time	V_R = 5 V, R_L = 1 K	t_f		50		ns

TYPICAL PERFORMANCE CURVES

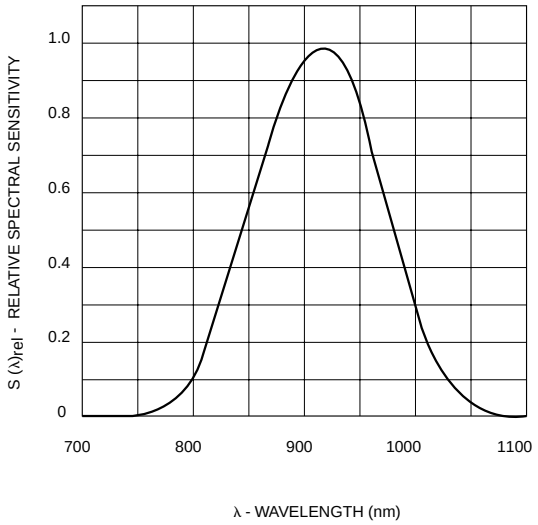

Fig. 1 Relative Spectral Sensitivity vs. Wavelength

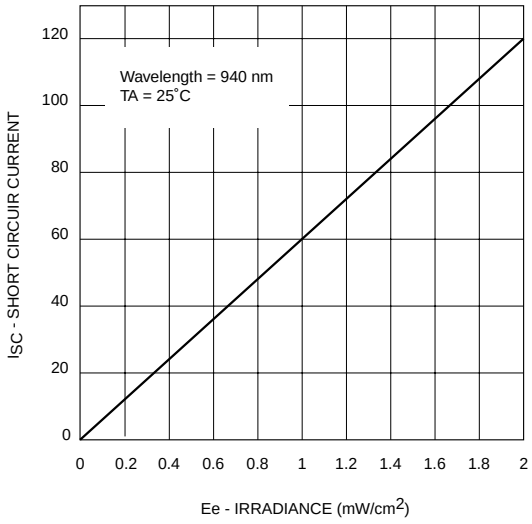

Fig. 2 Short Circuit Current vs. Irradiance

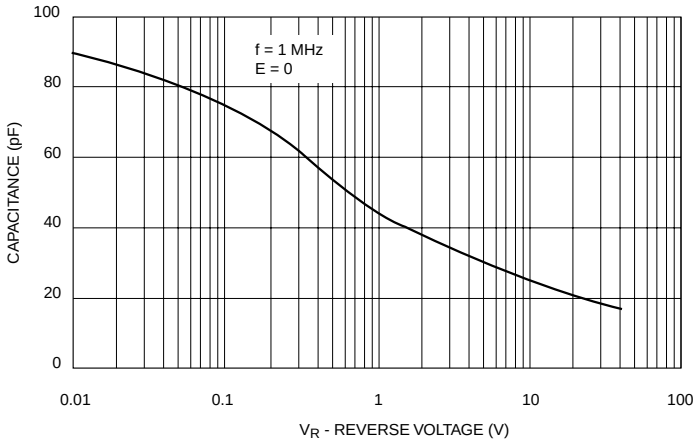

Fig. 3 Capacitance vs. Reverse Voltage

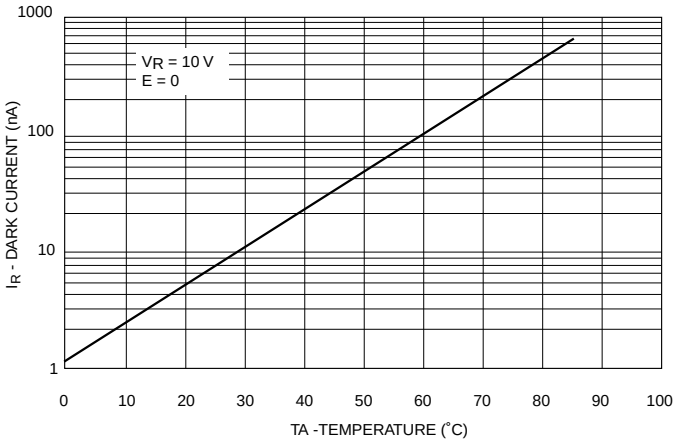

Fig. 4 Dark Current vs. Temperature

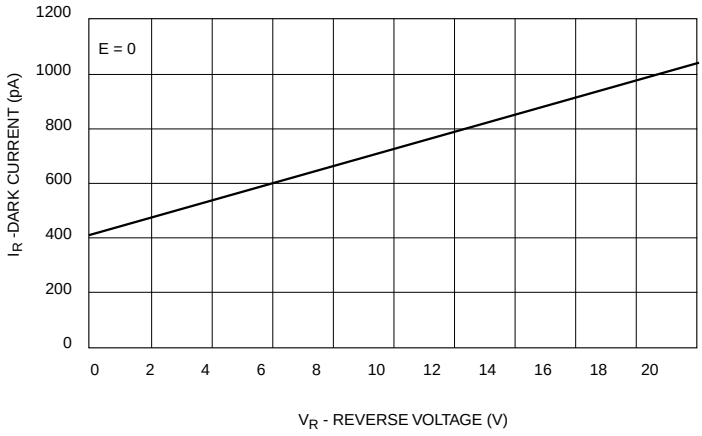

Fig. 5 Dark Current vs. Reverse Voltage