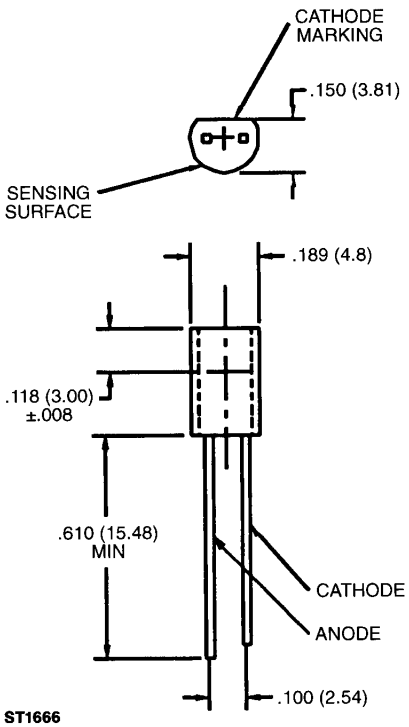
OPTOELECTRONICS

SIDELOOKER PIN PHOTODIODE

QSE973

PACKAGE DIMENSIONS



NOTES:
1. DIMENSIONS ARE IN INCHES (mm).

DESCRIPTION

The QSE973 is a silicon PIN photodiode encapsulated in an infrared transparent, black, plastic sidelooker package.

FEATURES

- High sensitivity
- Low cost
- Plastic package is infrared transparent and tinted to attenuate visible light

QT OPTOELECTRONICS

SIDELOOKER PIN PHOTODIODE

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C Unless Otherwise Specified)

Storage Temperature ..... −40°C to +85°C
Operating Temperature ..... −40°C to +85°C
Soldering:
Lead Temperature (Iron) ..... 240°C for 5 sec.(2,3,4,5)
Lead Temperature (Flow) ..... 260°C for 10 sec.(2,3,5)
Reverse Voltage ..... 32 Volts
Power Dissipation ..... 150 mW(1)

ELECTRICAL CHARACTERISTICS (T_A = 25°C Unless Otherwise Specified)
(All measurements made under pulse conditions.)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Reverse Voltage	V_R	32		—	V	I_R = 0.1 mA
Dark Reverse Current	$I_{R(D)}$	—		30	nA	V_R = 10 V
Peak Sensitivity	λpk		930		nm	V_R = 5 V
Reception Angle at ½ Power	θ		±45		Degrees	
Photosensitivity	S	30		—	μA	Ee = 1.0 mW/cm², V_{CE} =5V(6)
Capacitance	C		20		pf	V_R = 3 V
Rise Time	t_r		50		nS	V_R = 5 V, R_L = 1KΩ
Fall Time	t_f		50		nS	V_R = 5 V, R_L = 1KΩ

NOTES

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 tip 1/16" (1.6 mm) from housing.*
5. *As long as leads are not under any stress or spring tension.*
6. *Light source is an GaAs LED emitting light at a peak wavelength of 940 nm.*