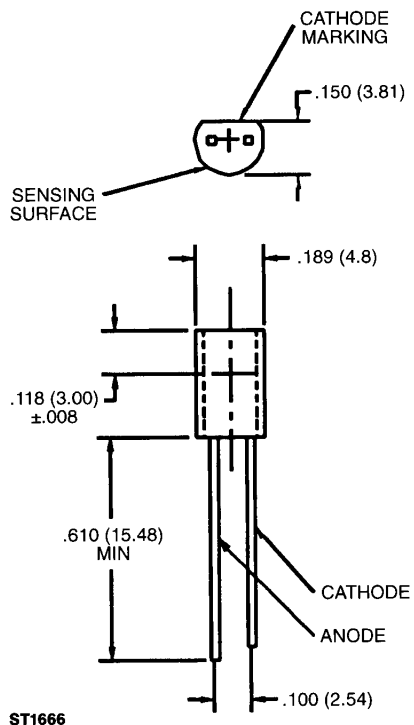




SIDELOOKER PIN PHOTODIODE

QSE973

PACKAGE DIMENSIONS



ST1666

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

NOTES:

1. DIMENSIONS ARE IN INCHES (mm).



SIDELOOKER PIN PHOTODIODE

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ 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 ($T_A = 25^\circ\text{C}$ Unless Otherwise Specified) (All measurements made under pulse conditions.)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
Reverse Voltage	V_R	32		—	V	$I_R = 0.1 \text{ mA}$
Dark Reverse Current	$I_{R(D)}$	—		30	nA	$V_R = 10 \text{ V}$
Peak Sensitivity	λ_{pk}		930		nm	$V_R = 5 \text{ V}$
Reception Angle at 1/2 Power	θ		± 45		Degrees	
Photosensitivity	S	30		—	μA	$E_e = 1.0 \text{ mW/cm}^2$, $V_{CE} = 5\text{V}^{(6)}$
Capacitance	C		20		pf	$V_R = 3 \text{ V}$
Rise Time	t_r		50		nS	$V_R = 5 \text{ V}$, $R_L = 1\text{K}\Omega$
Fall Time	t_f		50		nS	$V_R = 5 \text{ V}$, $R_L = 1\text{K}\Omega$

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.