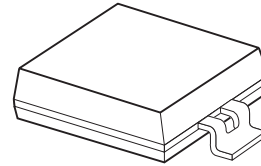
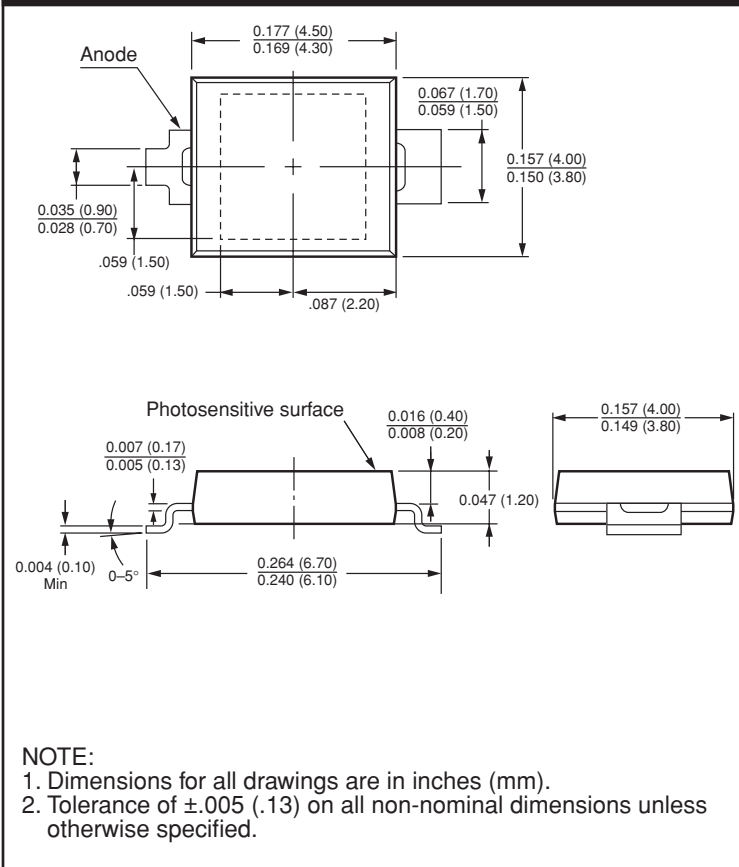
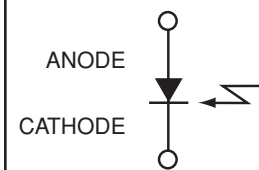


QSB34GR, QSB34ZR

PACKAGE DIMENSIONS, QSB34GR



SCHEMATIC



FEATURES

- Daylight Filter
- Surface Mount Packages:
 - QSB34GR for overmount board
 - QSB34ZR for undermount board
- Fast PIN Photodiode
- Wide Reception Angle, 120°
- Large Chip Size = .014 in² (9 mm²)
- High Sensitivity
- Low Capacitance
- Available in 0.470" (12mm) width tape on 7" (178mm) diameter reel; 1,000 units per reel

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 (Reflow) ^(2,3)	T _{SOL-F}	240 for 5 sec	°C
Reverse Voltage	V _R	32	V
Power Dissipation ⁽¹⁾	P _D	150	mW

Notes:

1. Derate power dissipation linearly 2.50 mW/°C above 25°C.
2. Solder iron (15W max temp 260°C for 5 max sec.)
3. Methanol or isopropyl alcohols are recommended as cleaning agents.
4. Light source is an GaAs LED which has a peak emission wavelength of 940 nm.

QSB34GR, QSB34ZR

ELECTRICAL / OPTICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Test Conditions	Symbol	Min	Typ	Max	Units
Reverse Voltage	$I_R = 0.1 \text{ mA}$	V_R	32		—	V
Dark Reverse Current	$V_R = 10 \text{ V}$	$I_{R(D)}$	—		30	nA
Peak Sensitivity	$V_R = 5 \text{ V}$	λ_{PK}		940		nm
Reception Angle @ 1/2 Power		Θ		± 60		Degrees
Photo Current	$E_e = 1.0 \text{ mW/cm}^2$, $V_{CE} = 5 \text{ V}^{(4)}$	I_{PH}	25	37	—	μA
Capacitance	$V_R = 3 \text{ V}$	C		25		pF
Rise Time	$V_R = 10 \text{ V}$, $R_L = 50 \Omega$	t_r		20		ns
Fall Time		t_f		20		ns
Spectral Sensitivity		S_λ		.40		A/W

TYPICAL PERFORMANCE CURVES

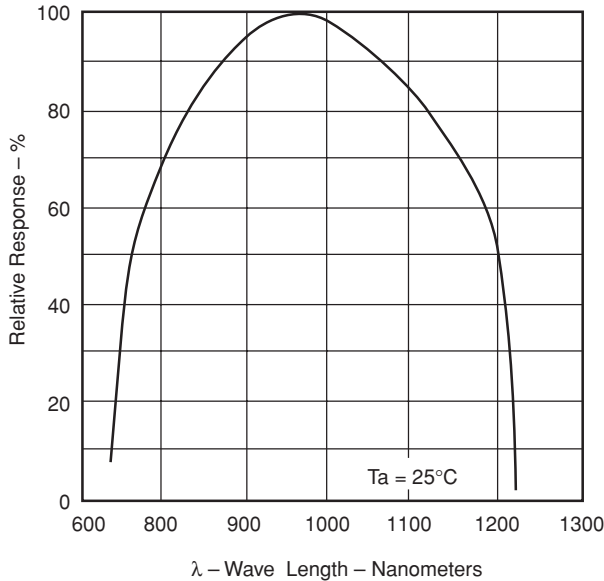


Fig. 1 Relative Spectral Sensitivity vs. Wavelength

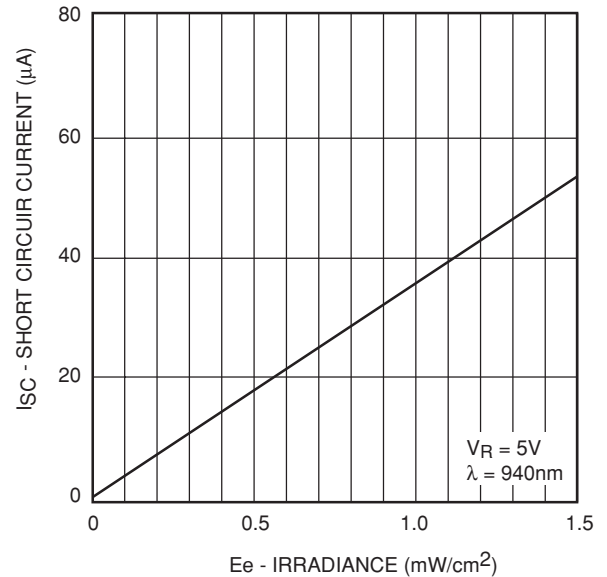


Fig. 2 Short Circuit Current vs. Irradiance

QSB34GR, QSB34ZR

TYPICAL PERFORMANCE CURVES (Cont.)

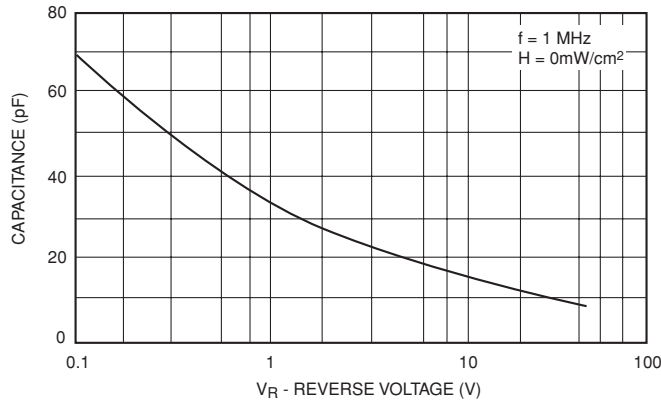


Fig. 3 Capacitance vs. Reverse Voltage

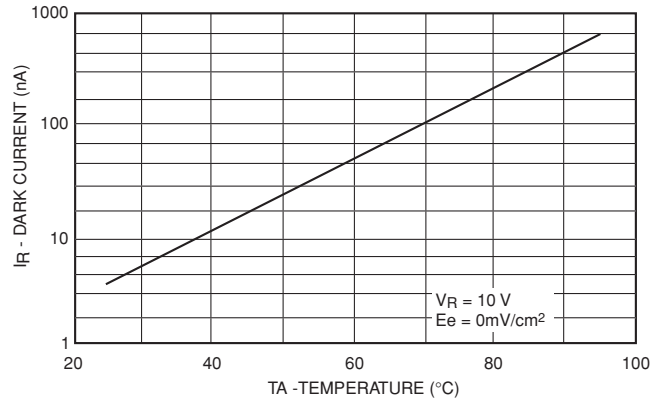


Fig. 4 Dark Current vs. Temperature

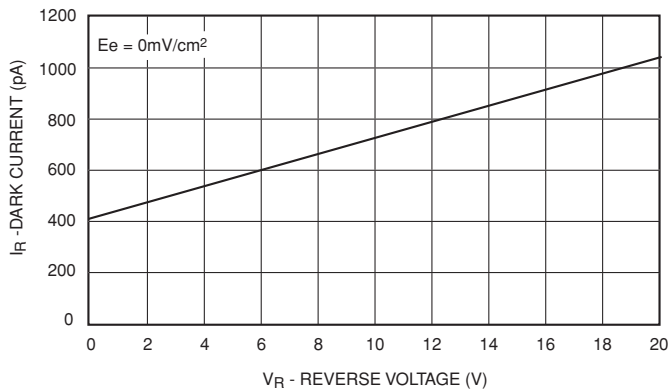


Fig. 5 Dark Current vs. Reverse Voltage

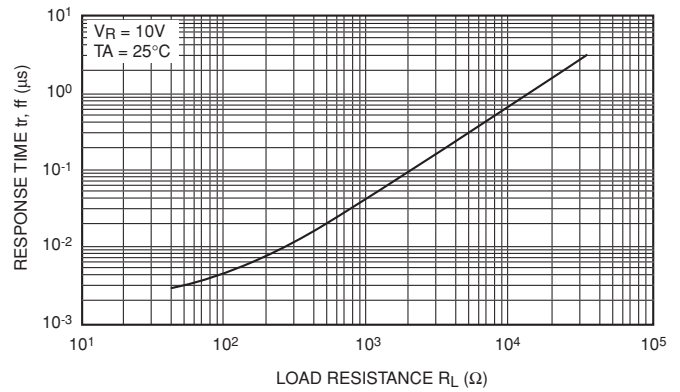
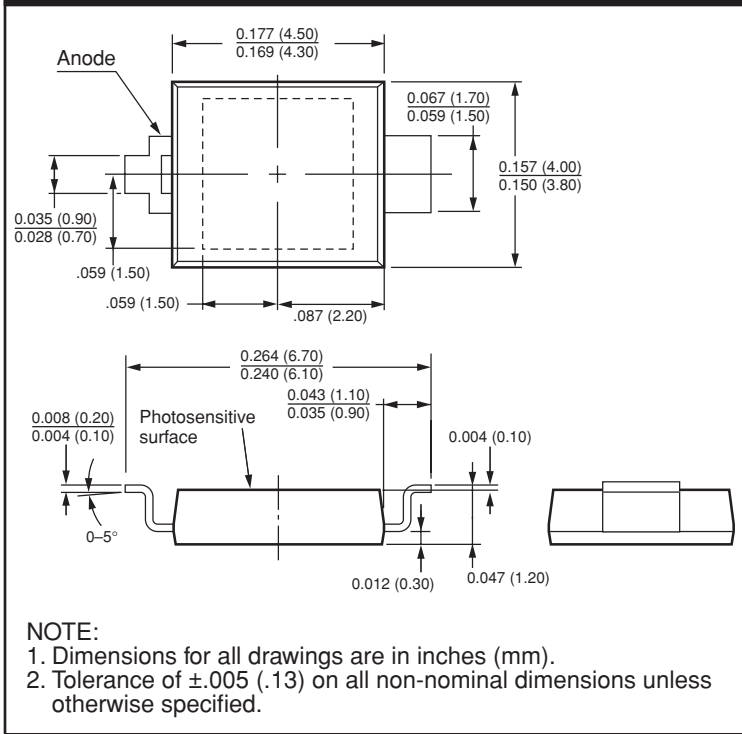


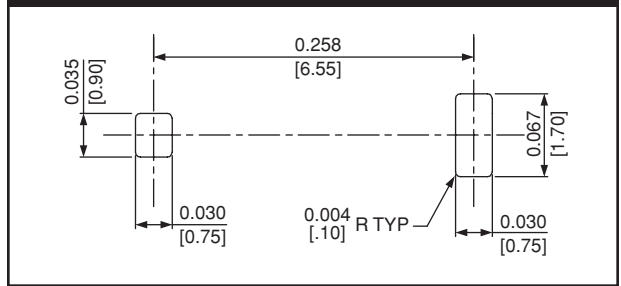
Fig. 6 Response Time vs. Load Resistance

QSB34GR, QSB34ZR

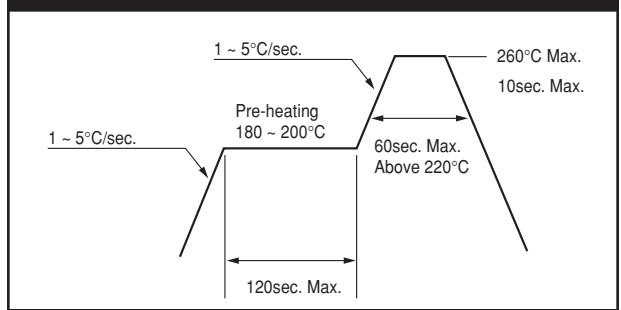
PACKAGE DIMENSIONS, QSB34ZR



**RECOMMENDED SOLDER SCREEN
PATTERN (For Reference Only)**



**RECOMMENDED IR REFLOW
SOLDERING PROFILE**

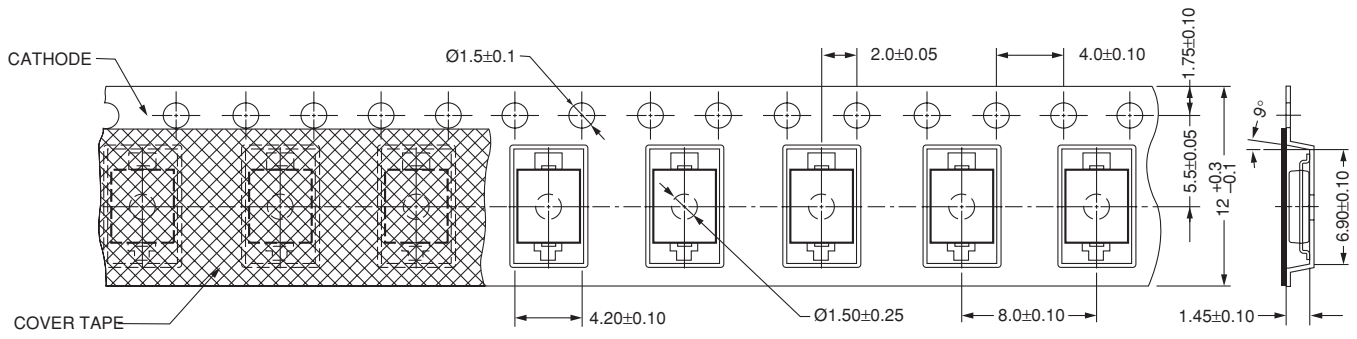
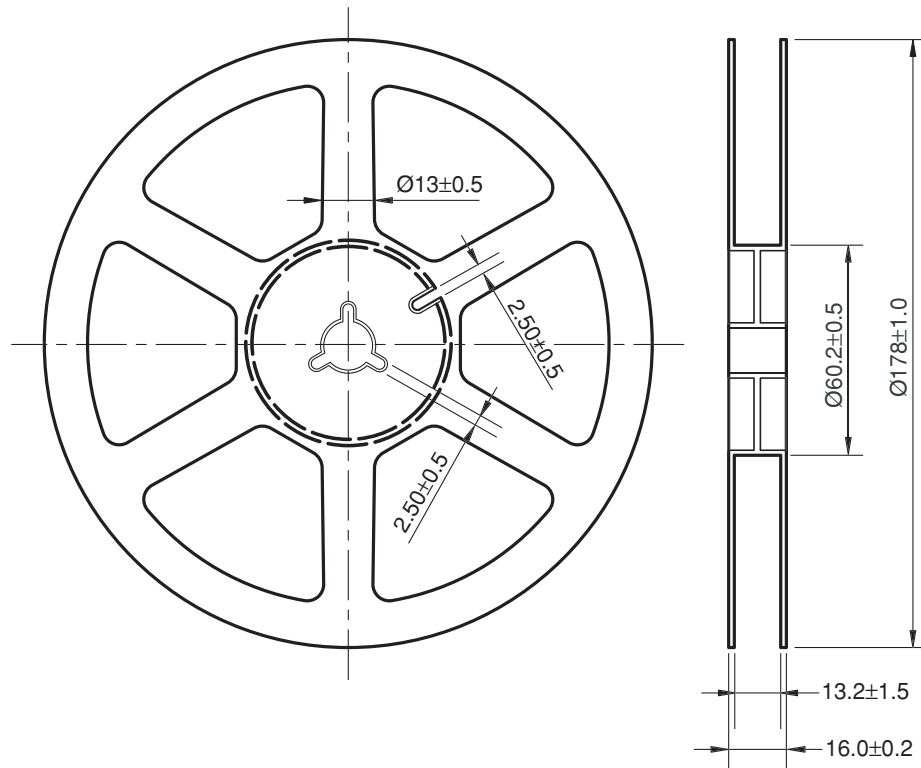


ORDERING INFORMATION

Option	Description
QSB34GR	Gullwing, 1000 units per reel
QSB34ZR	Z-Bend reversed, 1000 units per reel

QSB34GR, QSB34ZR

TAPE & REEL DIMENSIONS



Unit: mm

QSB34GR, QSB34ZR

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