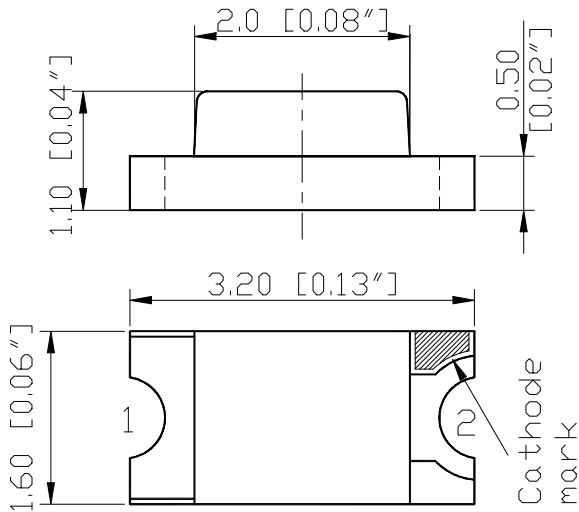


PHOTO DIODE

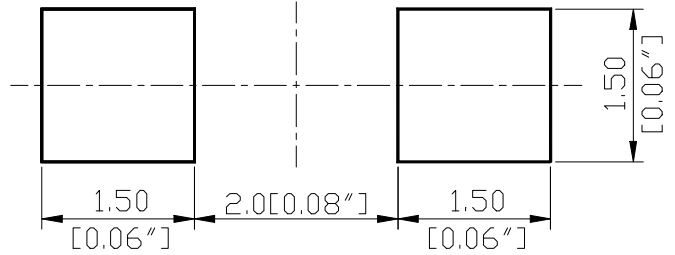
SMD Silicon PIN Photodiode Series

Part Number: P150EOD

Package outlines



RECOMMEND PAD LAYOUT



ITEM	MATERIALS
Resin (mold)	Epoxy
Printed circuit board	BT (white)
Bonding wire	$\phi 25 \mu\text{m Au}$
Lens color	Water transparent
Dice	Silicon

NOTES:

1. All dimensions are in millimeters (inches);
2. Tolerances are $\pm 0.1\text{mm}$ (0.004inch) unless otherwise noted.

Rev :	Date	Drawn by :	Checked by :	Approved by :
D	2009/2/5			

PHOTO DIODE

Part Number: P150EOD

Absolute maximum ratings

($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Operating temperature range	Top	-40 ~+80	$^{\circ}\text{C}$
Storage temperature range	Tstg	-40 ~+85	$^{\circ}\text{C}$
Reverse voltage	Vr	35	V
Power dissipation at (or below) 25°C free air temperature	Pd	150	mW

Electro-optical characteristics

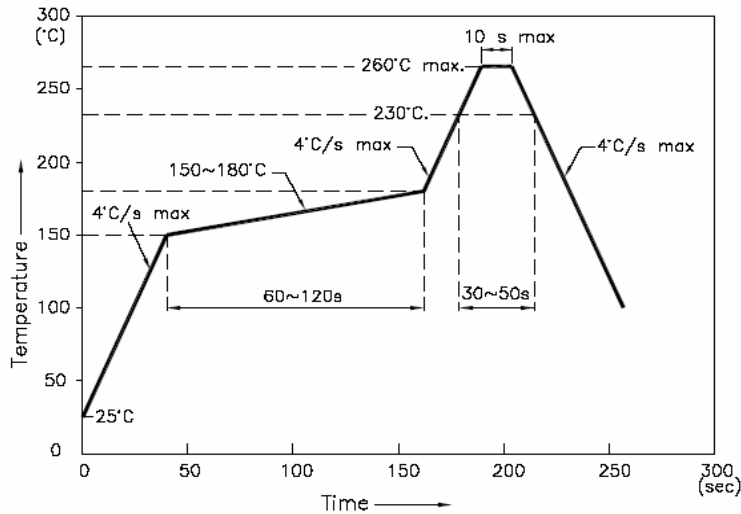
($T_A=25^{\circ}\text{C}$)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
Reverse breakdown voltage	$I_R = 1\mu\text{A}$ $H = 0\text{mw}/\text{cm}^2$	$V_{(BR)R}$	15	--	--	V
Reverse dark current	$V_R = 10\text{V}$ $H = 0\text{mw}/\text{cm}^2$	I_D	--	--	1	nA
Short circuit current	$C_T = 2870^{\circ}\text{K}$ $H = 5\text{mw}/\text{cm}^2$	I_{SC}	--	13	--	μA
Reverse light current	$V_R = 5\text{V}$ $C_T = 2870^{\circ}\text{K}$ $H = 5\text{mw}/\text{cm}^2$	I_L	--	13	--	μA
Total capacitance	$V_R = 3\text{V}$ $H = 0\text{mw}/\text{cm}^2$ $f = 1\text{MHz}$	C_t	--	20	--	pF

PHOTO DIODE

Reflow Profile

■ Reflow Temp/Time



NOTES:

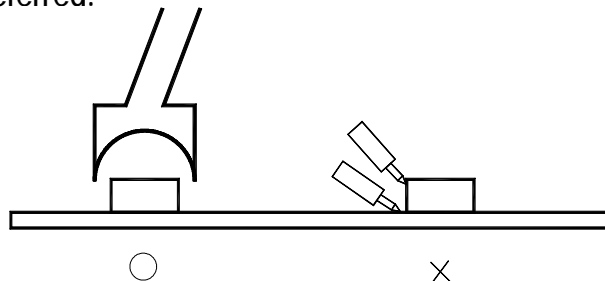
1. We recommend the reflow temperature 245°C (±5°C). the maximum soldering temperature should be limited to 260°C.
2. dont cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

■ Soldering iron

Basic spec is ≤ 5 sec when 260°C. If temperature is higher, time should be shorter (+10°C \rightarrow -1sec). Power dissipation of iron should be smaller than 20W, and temperatures should be controllable. Surface temperature of the device should be under 230°C.

■ Rework

1. Customer must finish rework within 5 sec under 260°C.
2. The head of iron can not touch copper foil
3. Twin-head type is preferred.



- Avoid rubbing or scraping the resin by any object, during high temperature, for example reflow、solder etc.

PHOTO DIODE

Handling precautions

■ Handling precautions

1. Over-current-proof

Customer must apply resistors for protection; otherwise slight voltage shift will cause big current change (Burn out will happen).

2.Storage

2.1 It is recommended to store the products in the following conditions:

Humidity: 60% R.H. Max.

Temperature : 5°C ~30°C (41°F ~86°F)

2.2 Shelf life in sealed bag: 12 month at < 5°C ~30°C and < 30% R.H. after the package is Opened, the products should be used within a week or they should be keeping to stored at ≤ 20 R.H. with zip-lock sealed.

3.Baking

It is recommended to baking before soldering when the pack is unsealed after 72hrs. The Conditions are as followings:

3.1 60±3°C x(12~24hrs) and < 5%RH, taped reel type

3.2 100±3°C x(45min~1hr), bulk type