

Lead (Pb) Free Product – RoHS Compliant

PD006-SMT(B) SMT Type PIN-Photodiode

PD006-SMT(B) is a surface mount type PIN-photodiode featuring excellent responsibility of 6ns and high photocurrent.

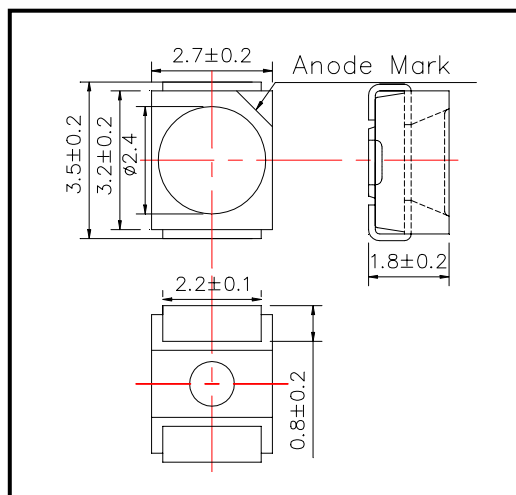
This PIN-photodiode consists of a large chip with 0.44x0.44mm active area mounted in a PPA Black color resin package and covered with epoxy resin.

This device exhibits a half angle of sensitivity $\pm 30^\circ$.

◆ Outer dimension (Unit: mm)

◆ Specifications

- 1) Product Name SMT Type Pin-Photodiode
- 2) Type No. PD006-SMT(B)
- 3) Chip
 - (1) Chip Size 0.6mmx0.6mm
 - (2) Active Area 0.44mmx0.44mm
- 4) Package
 - (1) Lead Frame Die Silver Plated
 - (2) Package Resin PPA Black Color Resin
 - (3) Lens Epoxy Resin



◆ Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value	Unit
Reverse Breakdown Voltage	V _{(BR)R}	170	V
Operating Temperature	T _{OPR}	-25 ~ +100	°C
Storage Temperature	T _{STG}	-30 ~ +125	°C
Soldering Temperature	T _{SOL}	255	°C

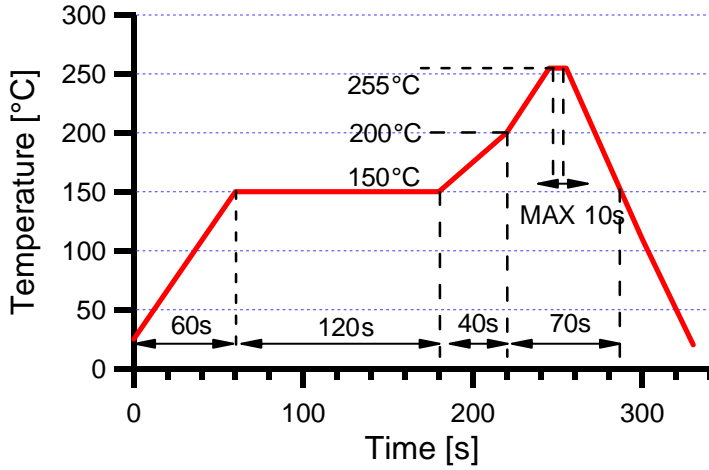
‡Soldering condition: Soldering condition must be completed within 10 seconds at 255°C

◆ Electro-Optical Characteristics [Ta=25°C]

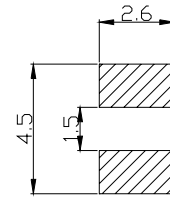
Item	Symbol	Condition	Minimum	Typical	Maximum	unit
Reverse Photo Current	I _L	V _R =10V, L=1000Lx		4		uA
Reverse Dark Current	I _D	V _R =10V			10	nA
Open Circuit Voltage	V _{OC}	V _R =10V, L=1000Lx		390		mV
Spectral Responsivity	A/W	λ _P =900nm		0.6		-
		λ _P =635nm		0.4		-
Half Angle of Sensitivity	θ _{1/2}			±30		deg.
Total Capacitance	C _T	V _R =10V, f=1MHz		6		pF
Rise/Fall Time (10% ~ 90%)	t _r	R _L =1KΩ, V _R =10V		6		ns
	t _f			6		ns

◆SMD Application

IR-Reflow Soldering Profile for lead free soldering



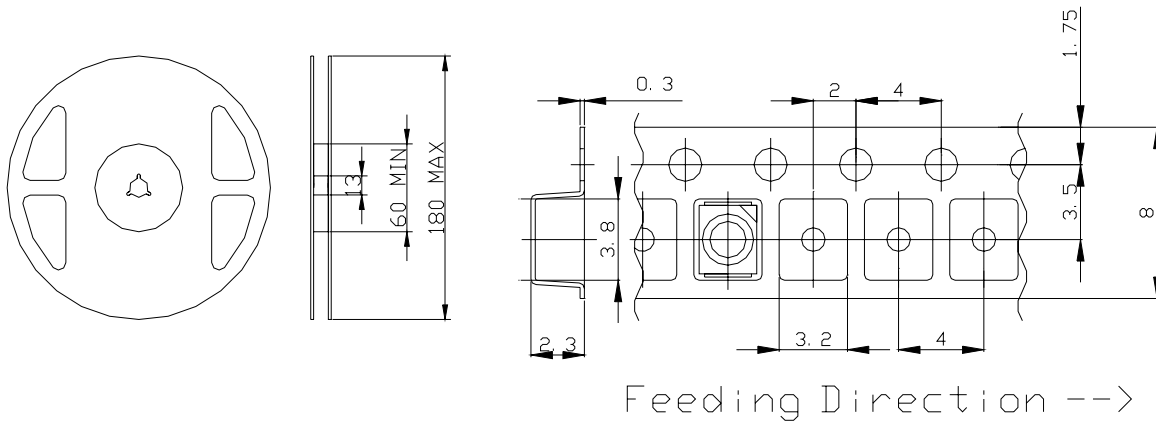
Recommended Land Layout (Unit: mm)



Don't put stress on SMD and a circuit board after soldering.

◆SMD Packing

Tape and Reel Dimensions (Unit: mm)



◆Wrapping

Moisture barrier bag aluminum laminated film with a desiccant to keep out the moisture absorption during the transportation and storage.