

PD010-SMP SMD Type PIN-Photodiode

PD010-SMP is a PIN-photodiode featuring excellent responsivity and high photocurrent.

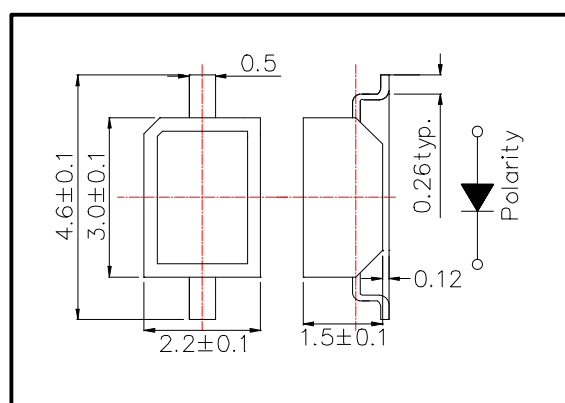
This PIN-photodiode consists of a large chip with 0.8x0.8mm active area mounted on the lead frame with reflector and is sealed with epoxy resin.

These devices are designed to be easy of setting up optically with a wide half angle of sensitivity $\pm 60^\circ$.

Specifications

- 1) Product Name SMD type PIN Photo-Diode
- 2) Type No. PD010-SMP
- 3) Chip
 - (1) Chip Size 0.8mmx0.8mm
 - (2) Active Area 1.0mmx1.0mm
- 4) Package
 - (1) Type Lead frame with Reflector
 - (2) Resin Material Epoxy Resin

Outer dimension (Unit : mm)



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 ~ +90	°C
Storage Temperature	T_{STG}	-30 ~ +100	°C
Soldering Temperature	T_{SOL}	240	°C

‡Soldering condition: Soldering condition must be completed within 2 seconds at 240°C

Electro-Optical Characteristics [Ta=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	unit
Reverse Photo Current	I_L	$V_R=10V, L=1000Lx$		14		uA
Reverse Dark Current	I_D	$V_R=10V$			10	nA
Open Circuit Voltage	V_{OC}	$V_R=10V, L=1000Lx$		410		mV
Spectral Responsivity (Peak)	I_P			900		nm
Half Angle of Sensitivity	$Q_{1/2}$			± 60		deg.
Total Capacitance	C_T	$V_R=10V, f=1MHz$		6		pF
Rise/Fall Time(10% ~ 90%)	t_r	$R_L=1KW, V_R=10V$		10		ns
	t_f			10		ns