



ZPD808B

Technical Data Sheet

4.8mm Semi-Lens Infrared Photodiode



Descriptions

ZPD808B is a high speed and sensitive PIN photodiode in a cylindrical side view plastic package. The epoxy package itself is an IR filter, spectrally matched to IR emitter.

Features

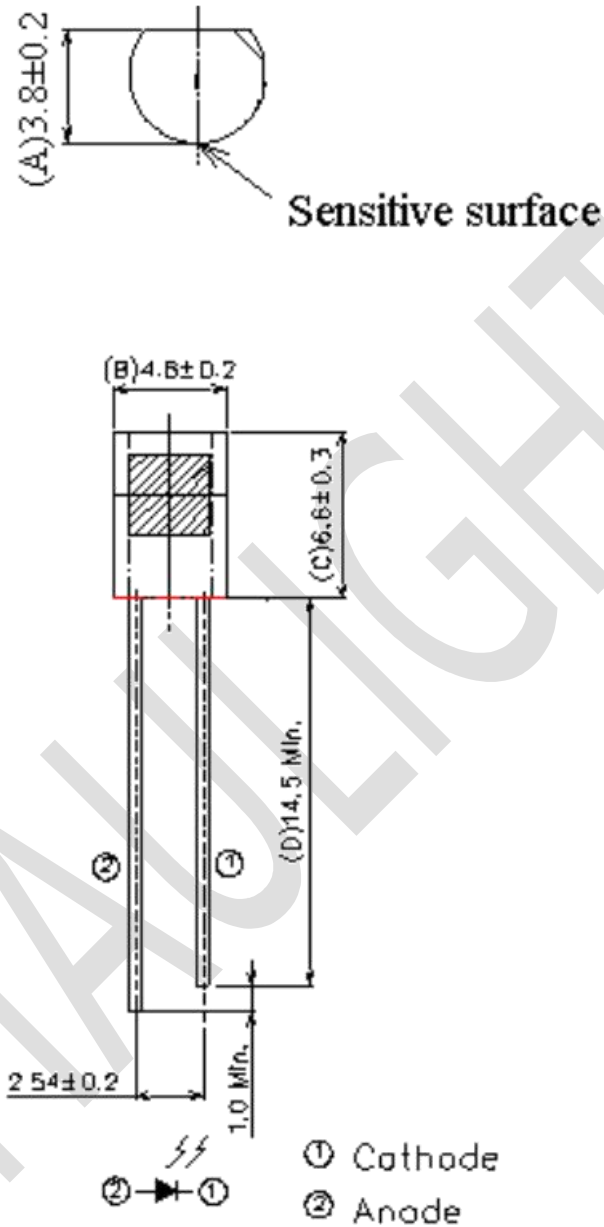
- Fast response times
- High photo sensitivity
- Small junction capacitance
- Pb.Free
- The product itself will remain within RoHS compliant version.
- Compliance with EU REACH

Applications

- High speed photo detector
- Camera
- Optoelectronic switch
- VCRs , Video camera
- Amusement machines



Package Dimension



Notes:

1. All dimensions are in millimeters
2. Tolerances unless dimensions $\pm 0.3\text{mm}$
3. Lead spacing is measured where the lead emerge from the package



Absolute Maximum Ratings (Ta=25°C)

Parameter (Ta=25°C)	Symbol	Ratings	Unit
Reverse Voltage	VR	32	mA
Power Dissipation	Pd	150	mW
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Soldering Temperature(*1)	Tsol	260	°C

Notes: *1: Soldering time \leq 5 seconds.



Electro-Optical Characteristics

Parameter (Ta=25°C)	Symbol	Condition	Min.	Typ.	Max.	Unit
Rang of Spectral Bandwidth	$\lambda_{0.5}$	--	400	--	1100	nm
Wavelength of Peak Sensitivity	λ_p	--	--	940	--	nm
Open-Circuit Voltage	VOC	Ee=5m W/cm ² $\lambda_p=940\text{nm}$	--	0.35	--	V
Short- Circuit Current	ISC	Ee=1m W/cm ² $\lambda_p=940\text{nm}$	--	18	--	uA
Reverse Light Current	IL	Ee=1m W/cm ² $\lambda_p=940\text{nm}$ VR=5V	31.0	--	35.0	uA
Dark Current	Id	Ee=0m W/cm ² VR=10V	--	5	30	nA
Reverse Breakdown	BVR	Ee=0m W/cm ² IR=100 μ A	32	170	--	V
Total Capacitance	Ct	Ee=0m W/cm ² VR=3V f=1MHZ	--	25	--	pF
Rise/Fall Time	tr/tf	VR=10V RL=1K Ω	--	50/50	--	nS

Note:

Tolerance of Luminous Intensity: $\pm 10\%$

Tolerance of Dominant Wavelength: $\pm 1\text{nm}$

Tolerance of Forward Voltage: $\pm 0.1\text{V}$



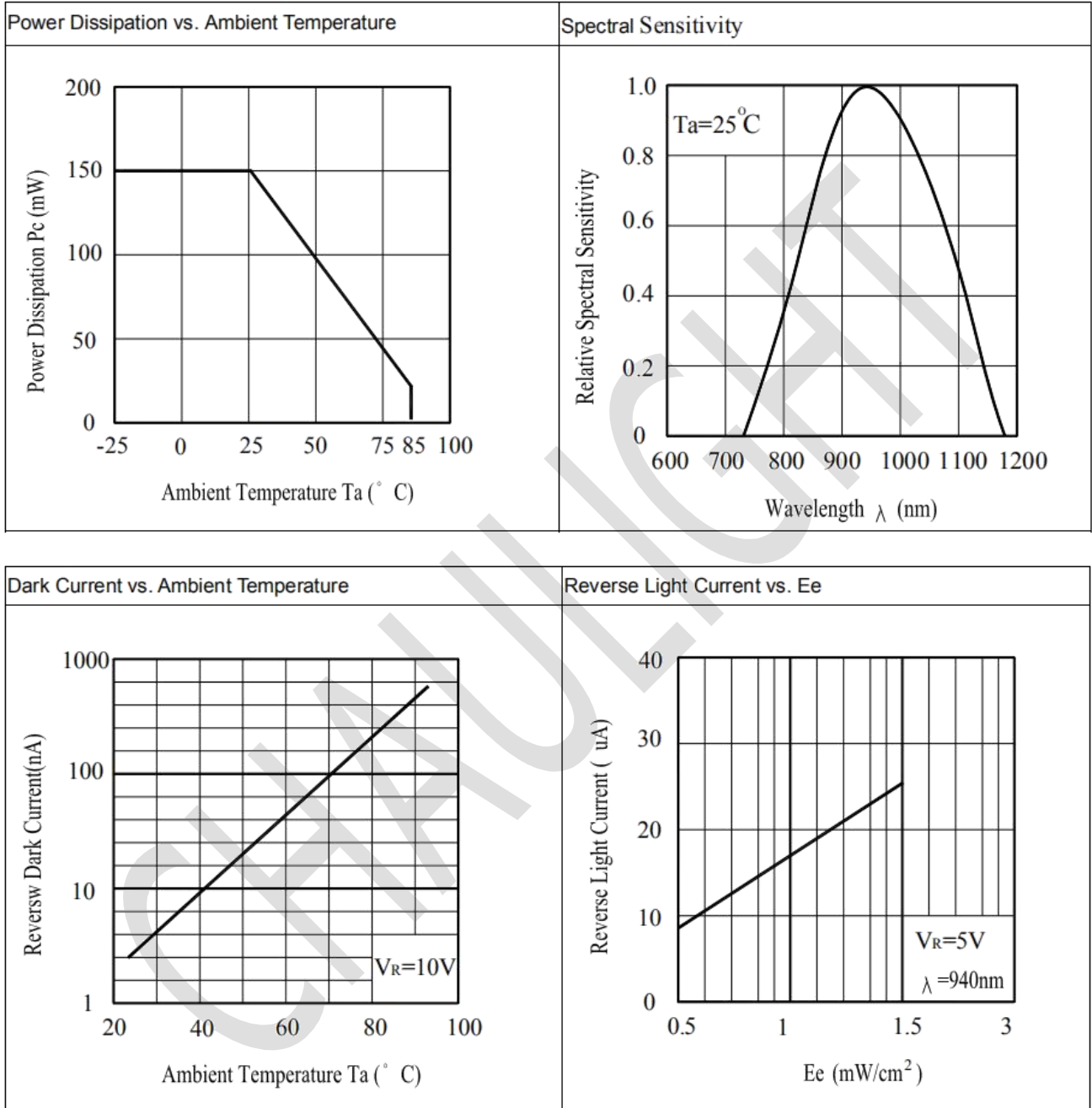
Rank

Parameter	Symbol	Condition	Min.	Max.	Unit
BIN4	IL	Ee=1m W/cm2 $\lambda_p=940\text{nm}$ VR=5V	31.0	35.0	μA

CHAU LIGHT

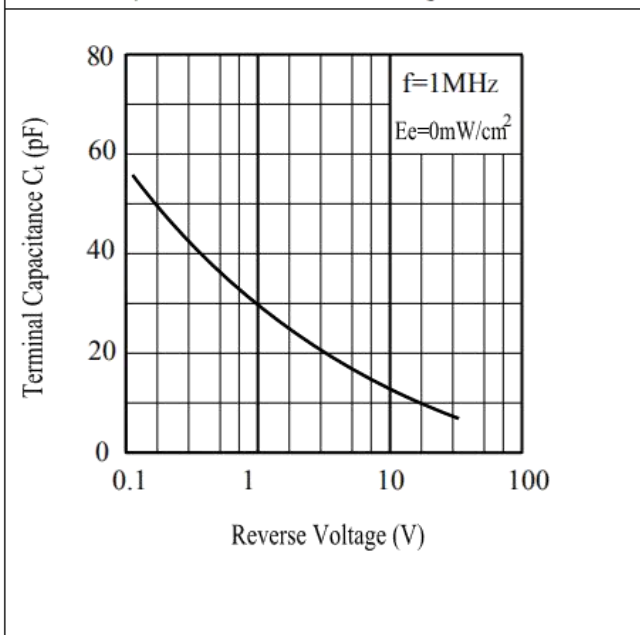


Typical Electro-Optical Characteristics Curves





Terminal Capacitance vs. Reverse Voltage



Response Time vs. Load Resistance

