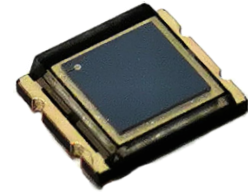


ZPD-5042C-A10-Z2

Silicon Planar PIN Photodiode



Descriptions

ZPD-5042C-A10-Z2 is high sensitivity, fast switching times, low capacitance, compact size, and lack of measurable degradation make it suitable for diverse applications, such as TV and appliance remote control, IR sound transmission, video recorders, and measurement and control.

Features

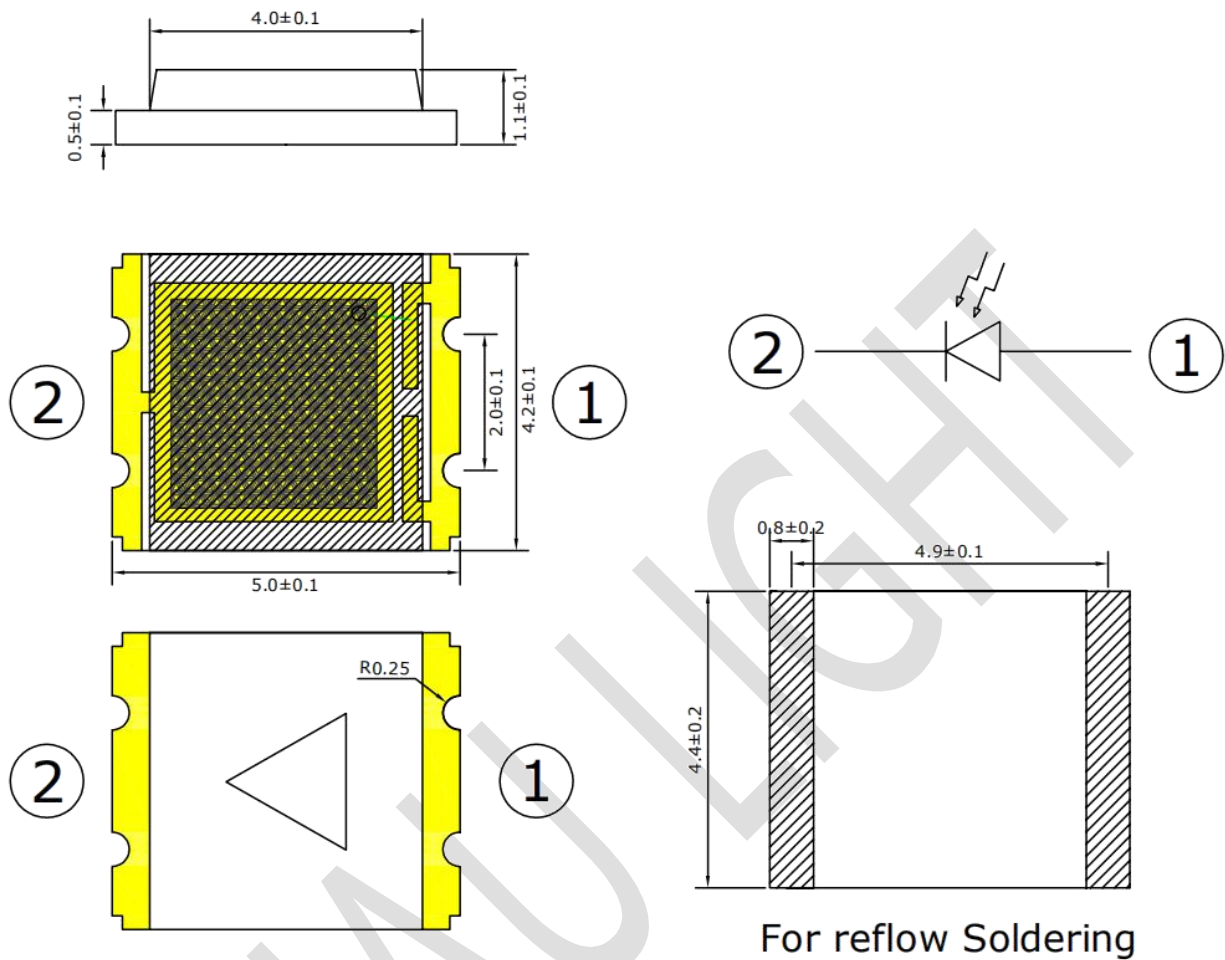
- Daylight filter
- High sensitivity
- Low capacitance
- Short switching time
- Wide temperature range
- Small package
- Pb free
- This product itself will remain within RoHS compliant version. Compliance with EU REACH.

Applications

- Sensor
- Oximeter
- Infrared applied system
- High speed photo detector



Package Dimension



Notes:

1. All dimensions are in millimeters
2. Tolerances unless dimensions ± 0.1 mm



Absolute Maximum Ratings

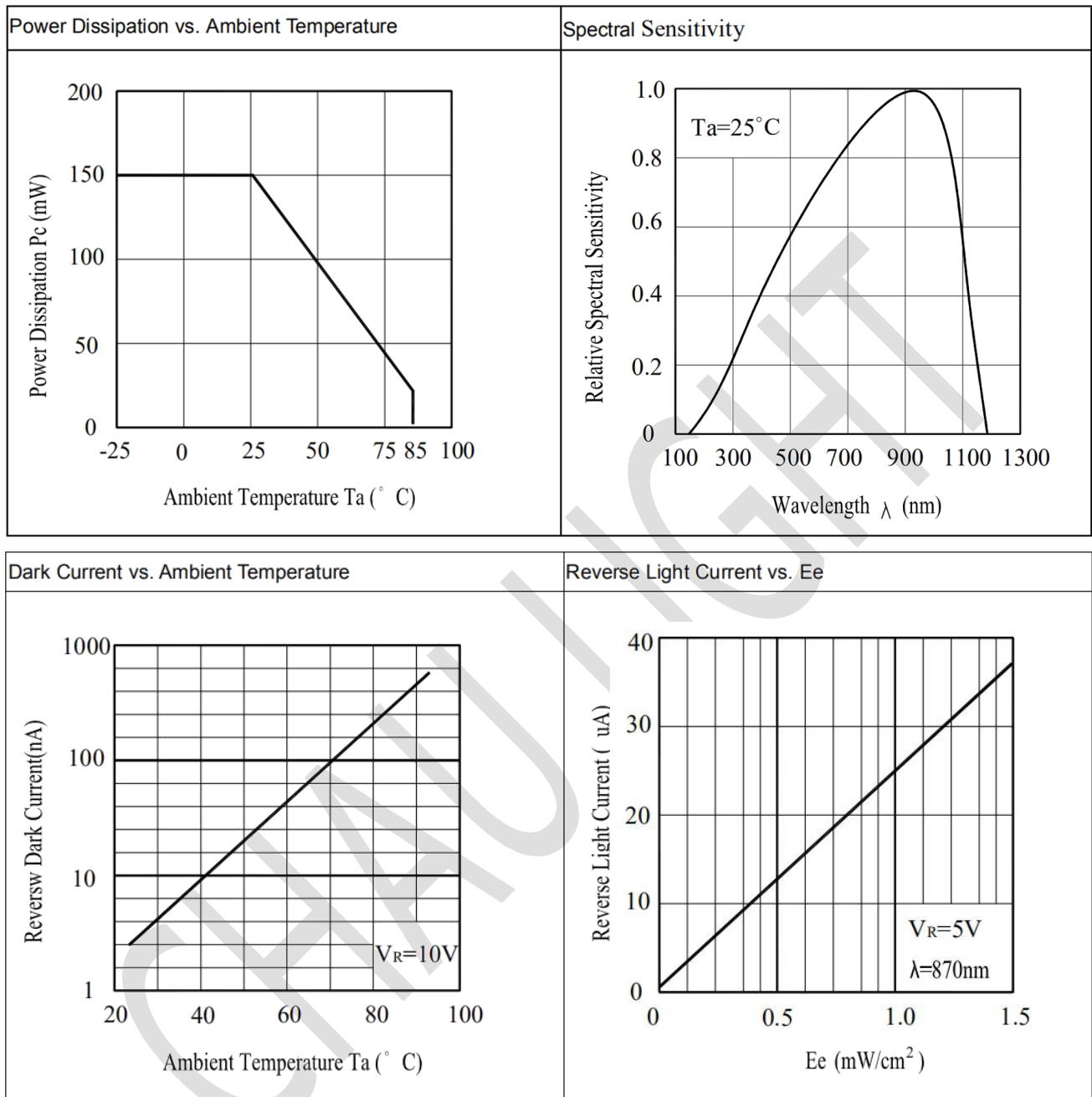
Parameter (Ta=25°C)	Symbol	Ratings	Unit
Power Dissipation at(or below) 25 Free Air Temperature	Pd	150	mW
Reverse Voltage	V _R	32	V
Operating Temperature	Topr	-25~+85	°C
Storage Temperature	Tstg	-40~+100	°C
Lead Soldering Temperature (2mm form body for 5 seconds)	Tsol	260	°C

Electro-Optical Characteristics

Parameter (Ta=25°C)	Symbol	Condition	Min.	Typ.	Max.	Units
Open-Circuit Voltage	V _{OC}	Ee=5mW/cm ² λ _p =940nm	--	0.35	--	V
Short- Circuit Current	I _{SC}	Ee=1mW/cm ² λ _p =940nm	--	35	--	μA
Reverse Light Current	I _L	Ee=1mW/cm ² λ _p =870nm V _R =5V	17	25	--	μA
Reverse Dark Current	I _D	Ee=0mW/cm ² V _R =10V	--	5	30	nA
Reverse Breakdown Voltage	B _{VR}	Ee=0mW/cm ² I _R =100μA	32	170	--	V
Rise Time	t _r	V _R =10V R _L =1000Ω	--	50	--	nS
Fall Time	t _f	V _R =10V R _L =1000Ω	--	50	--	nS
Total Capacitance	C _t	Ee=0mW/cm ² V _R =5V f=1MHz	--	25	--	pF
Rang Of Spectral Bandwidth	λ _{0.5}	--	400	--	1100	nm
Wavelength of Peak Sensitivity	λ _p	--	--	940	--	nm

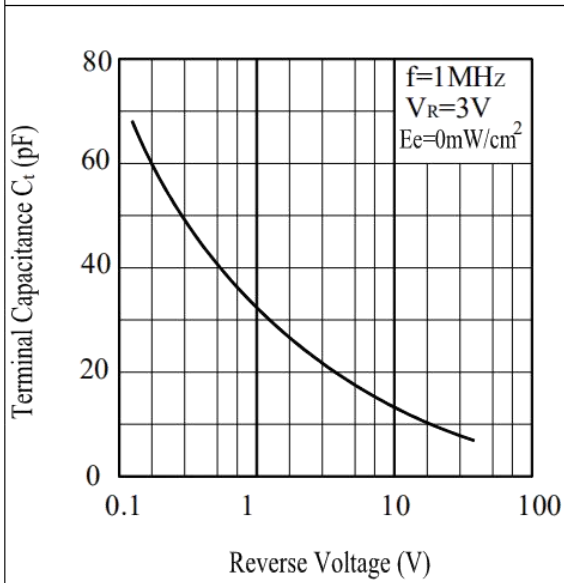


Typical Electro-Optical Characteristics Curves

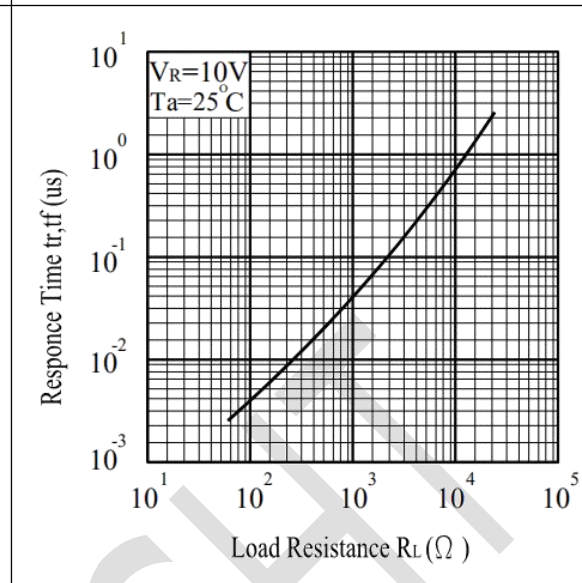




Terminal Capacitance vs. Reverse Voltage



Response Time vs. Load Resistance





Packing Quantity Specification

1. 1000Pcs/1Volume, 1Volume/1Bag
2. 10Boxes/1Carton

Notes

1. Above specification may be changed without notice. CHAULIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instruction for using outlined in these specification sheets. CHAULIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
3. These specification sheets include materials protected under copyright of CHAULIGHT corporation. Please don't reproduce or cause anyone to reproduce them without CHAULIGHT's consent.

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