HUIYUAN OPTO-ELECTRONIC CO.,LTD.

TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL：3004M1D

Features

·Fast response time

·High photo sensitivity

·Small junction capacitance

·Pb free

Descriptions

5013M1C is a high speed and high sensitive PIN photodiode in a standard 5Φplastic package.

The device is sensitive to visible and infrared radiation.

Applications

□Automatic door sensor

□Camera

□Game machine

□High speed photo detector

HUIYUAN OPTO-ELECTRONIC CO.,LTD.

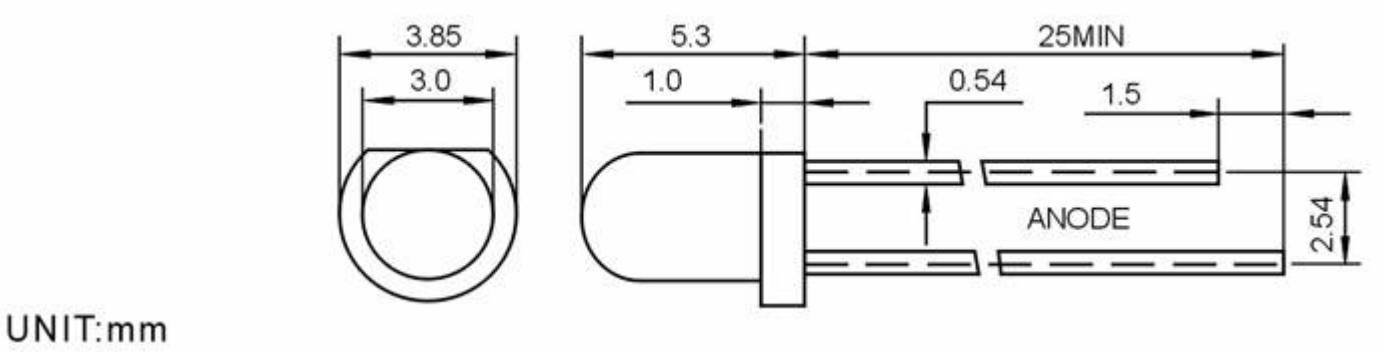
TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL：3004M1D

Device Selection Guide

LED Part No.	Chip Material	Lens Color
3004M1D	Silicon	Black

Package Dimensions



UNIT:mm

Notes:

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

TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL：3004M1D

Electro-Optical Characteristics (T_a=25□)

Parameter	Symbol	Min.	TYP.	Max.	Unit	Condition
Rang Of Spectral Bandwidth	λ	840	---	1100	nm	---
Wavelength of Peak Sensitivity	λP	---	940	---	nm	---
Collector-Emitter Breakdown Voltage	VBR CEO	30	---	---	V	IC=100μA IB=0
Emitter-Collector Breakdown Voltage	VBR ECO	5	---	---	V	IE=100μA IB=0
Collector-Emitter Saturation Voltage	VCE (SAT)	---	---	0.4	V	IC=0.1mA H=2.5mW/c ㎡
Collector Dark Current	ID	---	---	100	nA	VCE=10V H=0mW/c ㎡
Rise Time (10% to 90%)	TR	---	15	---	μs	VCE=5V IC=1mA
Fall Time (90% to 10%)	TF	---	15	---	μs	RL=100Ω
On State Collector Current	I(ON)	---	4	---	mA	VCE=5V Ee=1mW/c ㎡ λ=940nm
View Angle	2θ1/2	---	45	---	deg	IF=20mA λ=940nm

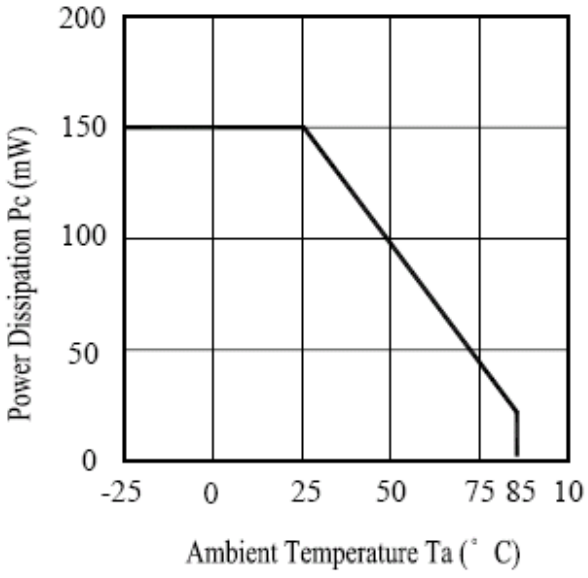
Note:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ1/2 is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

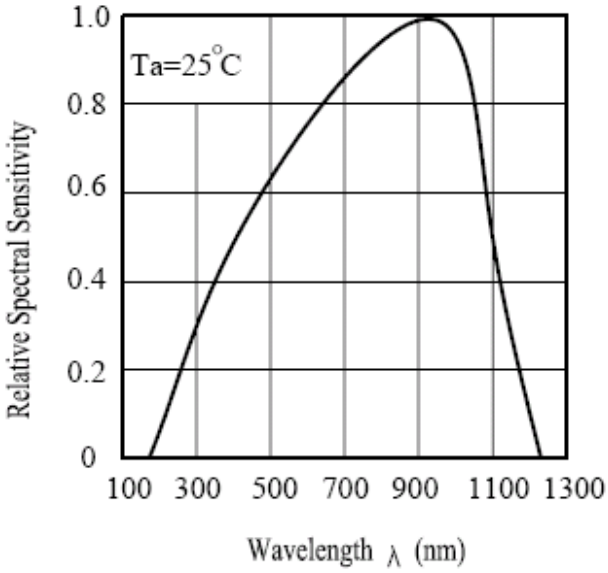
TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL：3004M1D

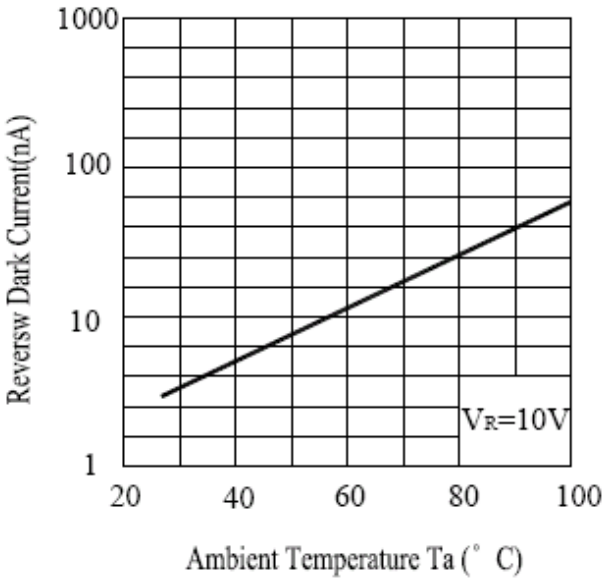
Typical Electro-Optical Characteristics Curves



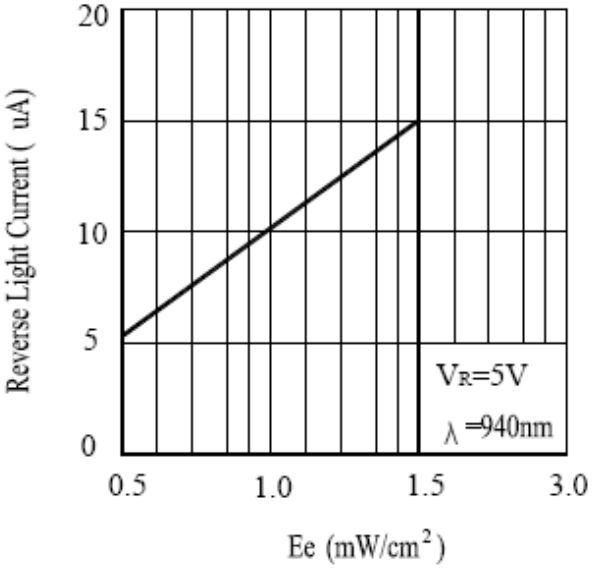
Power Dissipation vs Ambient Temperature



Spectral Sensitivity



Dark Current vs Ambient Temperature

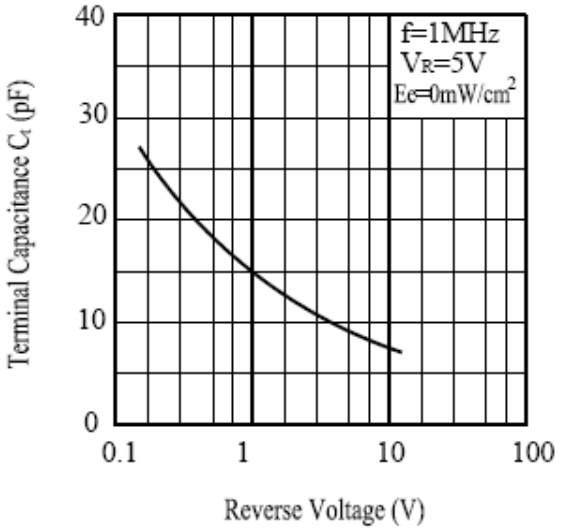


Reverse Light Current vs. Ee

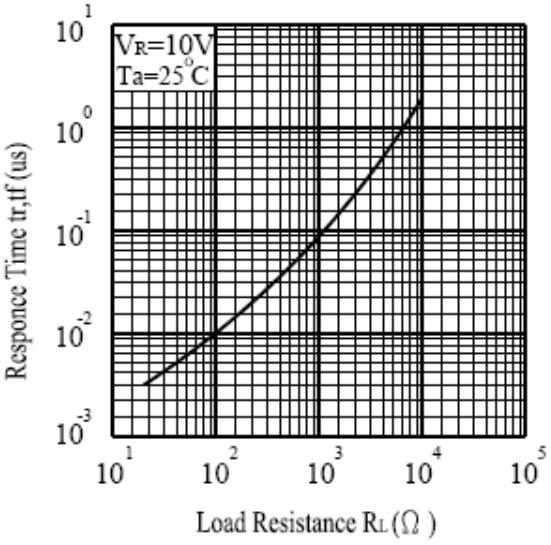
TECHNOLOGY DATA SHEET & SPECIFICATIONS

MODEL：3004M1D

Typical Electro-Optical Characteristics Curves



Terminal Capacitance vs.
Reverse Voltage



Response Time vs.
Load Resistance

Notes

1. Above specification may be changed without notice. HYLED will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. HYLED 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 HYLED corporation. Please don't reproduce or cause anyone to reproduce them without HYLED's consent.