深圳成光兴光电技术股份有限公司

SHENZHEN CGX OPTOELECTRONIC TECHNOLOGY , INC..

样 品 规 格 承 认 书

SAMPLE APPROVAL SHEET

客 户 名 称

Company Name ： _____

产 品 型 號

Part Number： **CDPT-5PLC8-020-B5**

送 樣 日 期

Sample Date： _____

APPROVED SIGNATURES（供应商确认）		
核准	品保	工程

客户确认：□样品承认 □不予承认需重新送样 □不予承认不需送样

客户建议：_____

_____

APPROVED SIGNATURES（客户确认）		
核准	工程	品保

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Visible Light Detector

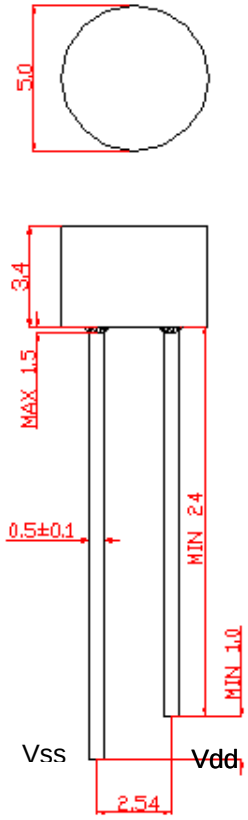
CDPT-5PLC8-020-B5

Description

The CPT-5PLC8-** s a NPN silicon phototransistor mounted in a lensed , water clear plastic package. It has a built in optical filter to provide a response which is close to the human eyes

Package Dimensions

Unit: mm



Features

- Wide range of collector current
- Lensed for high sensitivity
- Low cost plastic package

Notes :
1. Tolerance is ± 0.25mm .unless otherwise noted .
2. Protruded resin under flange is 1.5 mm . max
3. Lead spacing is measured where the leads emerge from the package.

Absolute Maximum Ratings

@ T_A=25℃

Parameter	Maximum Rating	Unit
Power Dissipation	100	mW
Collector-Emitter Voltage	30	V
Emitter-Collector Voltage	5	V
Operating Temperature Range	-20℃ to +80℃	
Storage Temperature Range	-25℃ to +85℃	
Lead Soldering Temperature	260℃ for 5 seconds	

Optical-Electrical Characteristics

@ T_A=25℃

Parameter	Test Conditions	Symbol	Min.	Typ .	Max.	Unit
Collector-Emitter Breakdown Voltage	I_C=0.1mA Ee=0	$V_{(BR)CEO}$	30	-	-	V
Emitter-Collector Breakdown Voltage	I_E=0.01 mA Ee=0	$V_{(BR)ECO}$	5	-	-	V
Collector-Emitter Saturation Voltage	I_C=1 5mA Ee=0.1mW/cm^2	$V_{CE(SAT)}$	-	-	1	V
Rise Time	V_{CC} =5V, R_L=100..	Tr	-	45	-	mS
Fall Time	I_C=10mA	Tf	-	65	-	
Collector Dark Current (Note1)	V_{CE}=5V 0 Lux, Ta = 25°C	I_{CEO}	-	30	100	nA
	0 Lux, Ta = 85°C		-	5	10	uA
On State Collector Current	V_{CE}=5V @CGX 590nm	$I_{C(ON)}$	3.0	6.0	11.0	uA

(Note1) 光敏管不同于光敏电阻, 光敏管常温下暗电流很小, 但随着温度升高会升高, 故此, 使用光敏管时, 应注意高温时暗电流的变化来设计电路

Typical Optical-Electrical Characteristic Curves

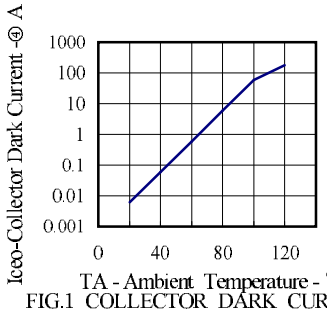


FIG.1 COLLECTOR DARK CURRENT VS AMBIENT TEMPERATURE

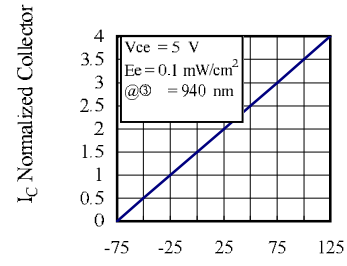


FIG.2 NORMALIZED COLLECTOR CURRENT VS AMBIENT TEMPERATURE

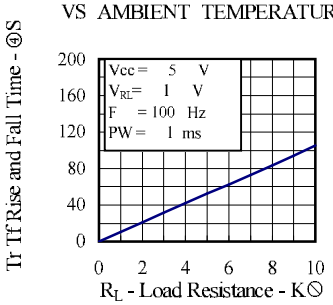


FIG.3 RISE AND FALL TIME VS LOAD RESISTANCE

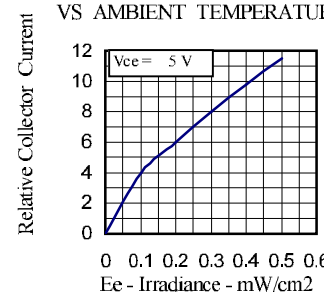


FIG.4 RELATIVE COLLECTOR CURREN VS IRRADIANCE

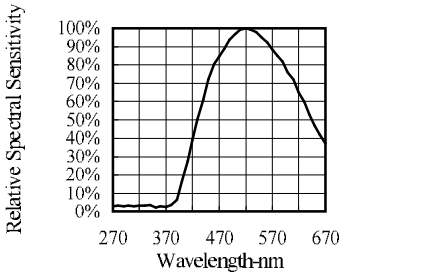


FIG.5 RELATIVE SPECTRAL SENSITIVITY VS. WAVELENGTH

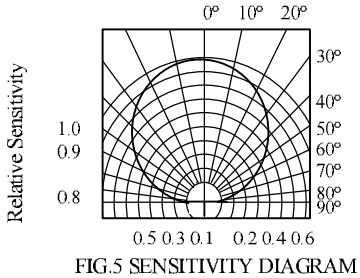


FIG.5 SENSITIVITY DIAGRAM

Dark Leakage vs Temperature