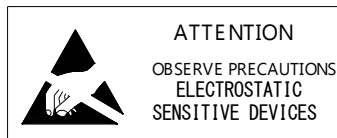


广州市昌辉电子科技有限公司
Guangzhou changhui electronics co.,ltd

承认书
SPECIFICATIONS FOR SURFACE MOUNT LED
LED 产品规格书



Customer
客户名称 : _____
Product Discription
产品描述 : IR TOP LED
Model
型号 : CH-IR502C-F9-L39-M106
Issue Date
发出日期 : 2023-08-11

Prepared By 制定	Checked By 审核	Approved By 批准	Marketing Dept. 市场部

APPROVED SIGNATURES 客户确认		
Purchase Dept. 采购部	Quality Dept. 品质部	Engineering Dept. 技术部

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Part Number: CH-IR502C-F9-L39-M106

Rev:00

■ Absolute Maximum Rating

Item	Symbol	Absolute Maximum Rating	Unit
Forward Current(电流)	I_F	20	mA
Peak Forward Current* (峰值正向电流)	I_{FP}	80	mA
Reverse Voltage (反向漏电流)	V_R	5	V
Junction Temperature(结温)	T_j	130	°C
Electrostatic discharge(静电)	E_{SD}	2000	V
Operation Temperature(使用温度)	T_{opr}	-20~+80	°C
Storage Temperature(储存温度)	T_{stg}	-20~+80	°C
Lead Soldering Temperature*	T_{sol}	Max. 260°C for 3sec Max.	

* I_{FP} Conditions: Pulse Width $\leq 10\text{msec}$ duty $\leq 1/10$

* T_{sol} Conditions: 3mm from the base of the epoxy bulb

■ Typical Optical/ Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage(电压)	V_F	$I_F=20\text{mA}$	1.1	1.3	1.6	V
Reverse Current(反向漏流)	I_R	$V_r=5\text{V}$	--	--	10	uA
50% Power Angle (角度)	$2\theta_{1/2}$	$I_F=20\text{mA}$	--	10	--	deg
Radiant Intensity(辐射强度)	I_e	$I_F=20\text{mA}$	2	3.5	7	mW/Sr
peak wavelength (波长)	λ_P	$I_F=20\text{mA}$		940		nm

Notes:

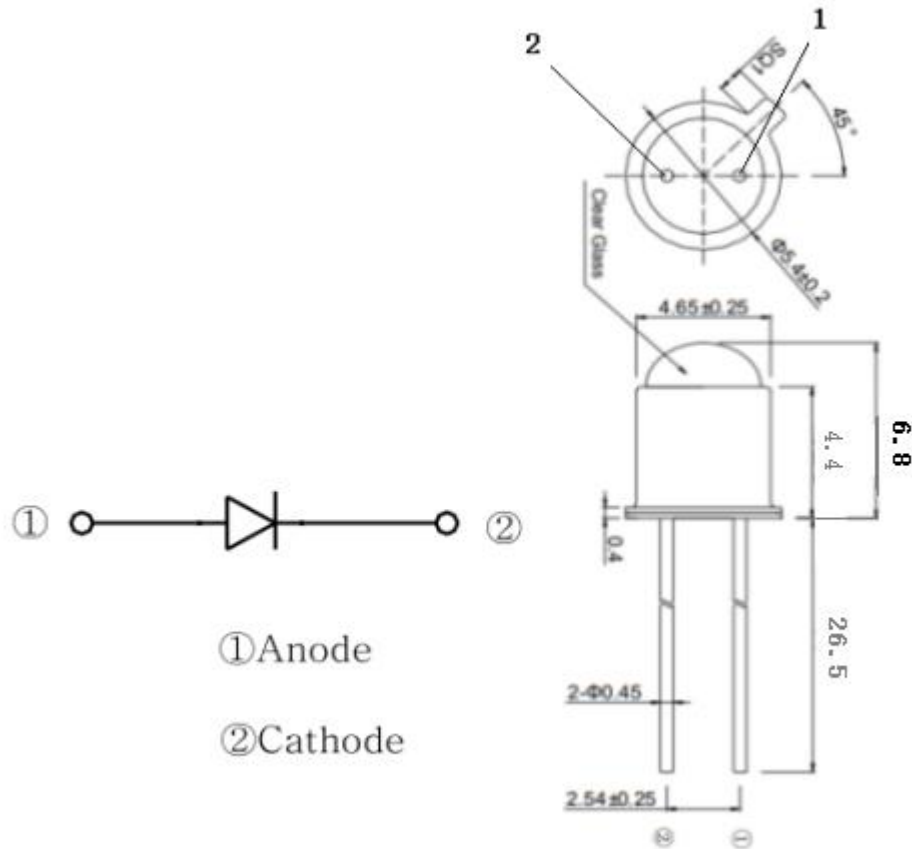
- 1.Absolute maximum ratings $T_a=25^\circ\text{C}$.
- 2.Tolerance of measurement of forward voltage $\pm 0.1\text{V}$.
- 3.Tolerance of measurement of peak Wavelength $\pm 2.0\text{nm}$.
- 4.Tolerance of measurement of luminous intensity $\pm 15\%$.

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■ Package Dimensions And Materials



Chip		Lens Color
Material	Emitting Color	
		Water clear

Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is $\pm 0.2\text{mm}$ unless otherwise noted.
3. An epoxy meniscus may extend about 1.5mm down the leads.
4. Burr around bottom of epoxy may be 0.5mm max..

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■ Reliability Performance

1.Test Items And Result

Test Classification	Test Item	Test Conditions	Test Duration	Sample Size	AC/RE
Life Test	Room Temperature DC Operating Life Test	Ta=25°C±5°C, IF=20mA	1000 hrs	5pcs	0/1
Environment Test	Thermal Shock Test	-40°C±5°C↔+105°C±5°C 5min. 10sec. 5min.	50 cycles	5 pcs	0/1
	Temperature Cycle Test	-40°C↔25°C↔105°C↔ 25°C 30min. 5min. 30min. 5min..	50 cycles	5 pcs	0/1
	High Temperature & High Humidity Test	Ta=85°C±5°C RH =85%±0.5 %RH	1000 hrs	5 pcs	0/1
	High Temperature Storage	Ta=105°C±5°C	1000 hrs	5pcs	0/1
	Low Temperature Storage	Ta=-40°C±5°C	1000 hrs	5 pcs	0/1
Mechanical Test	Resistance to Soldering Heat	Ta=260°C±5°C	5sec.	5 pcs	0/1
	Lead Integrity	Load 2.5N(0.25kgf) 0° ~ 90° ~0°	3times	5 pcs	0/1

2.Criteria for Judging The Damage

Item	Symbol	Test Conditions	Criteria for Judgment	
			Min.	Max.
Forward Voltage	VF	IF=20mA		U.S.L.*1.2
Reverse Current	IR	VR=5V		U.S.L.*2.2
Luminous Intensity	IV	IF=20mA	L.S.L.**×0.7	

U.S.L.* : Upper Standard Level

L.S.L.** : Lower Standard Level

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广州市昌辉电子科技有限公司

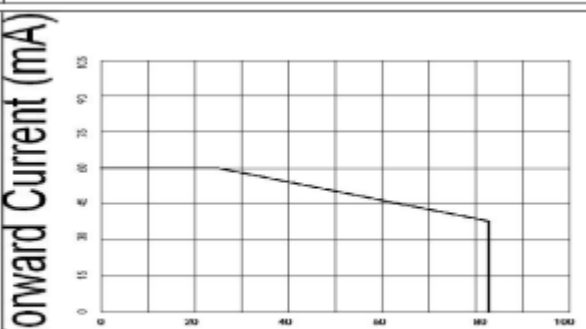
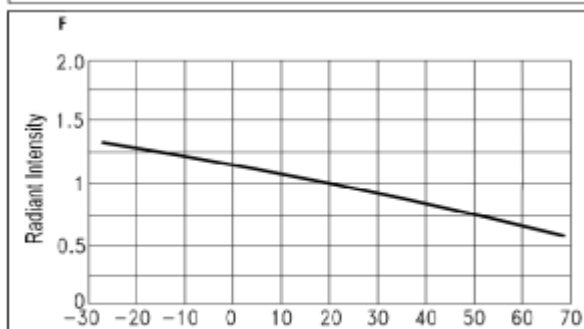
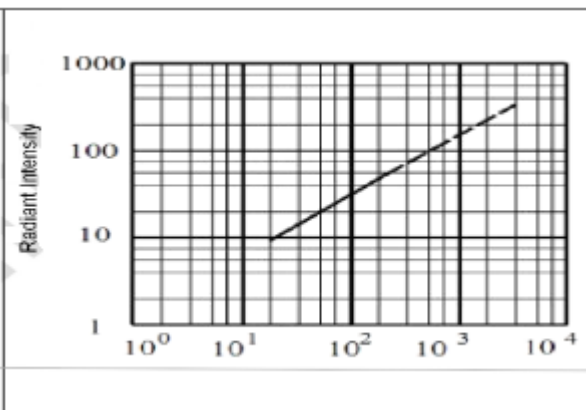
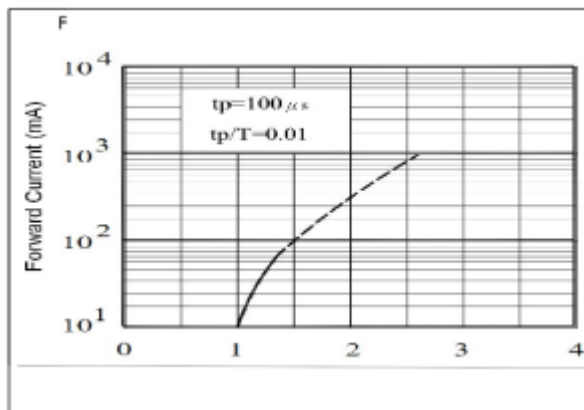
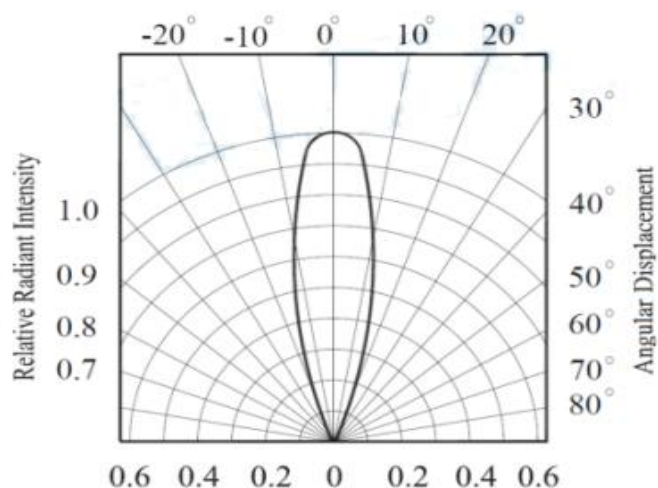
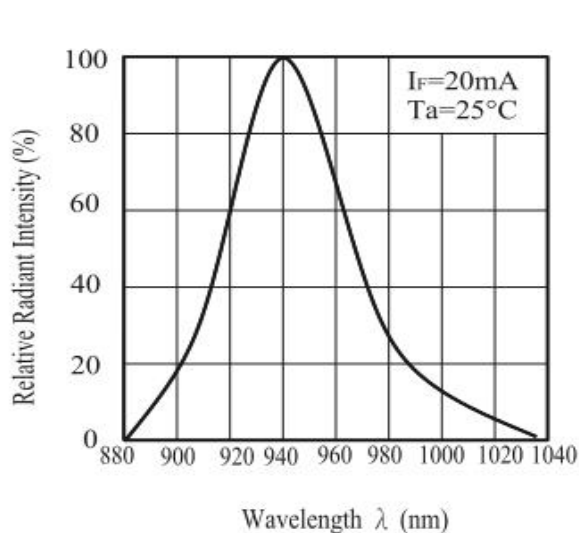
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■ Typical Optical/Electrical Characteristics Curves

(Ta=25°C Unless Otherwise Noted)



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