



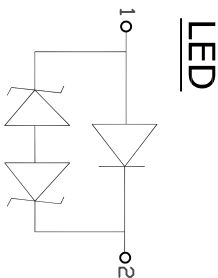
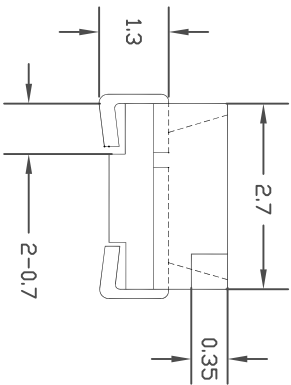
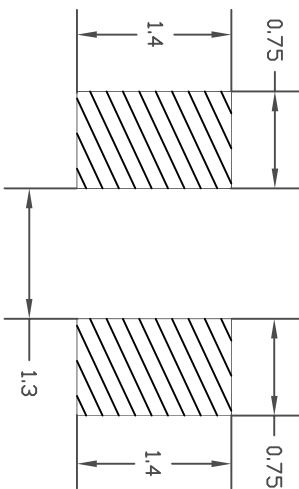
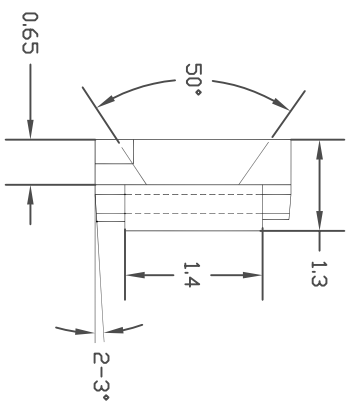
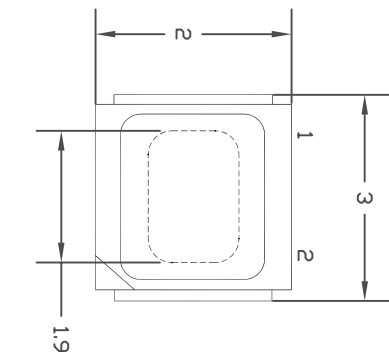
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SPC-F005.DWG

REVISONS		DOC. NO.	SPC-F005	*	Effective	7/8/02	*	DCP No	1398
DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVI	DATE	
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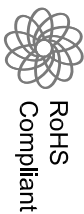
Package Outlines



ITEM	MATERIALS
Resin (mold)	Epoxy
Bonding Wire	#25µmAu
Lens color	Yellow diffused
Printed Circuit board	BT (White)
Dice	GaN/SiC
Emitted color	White

NOTES:

1. All dimensions are in millimeters (inches)
2. Tolerances are ±0.1mm (0.004inch) unless otherwise noted.



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DRAWING TITLE:

Multi-Color LED

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	MC24161	02P5956	XX
SCALE:	NTS	U.D.M.	INCHES [mm]
		SHEET:	1 OF 1



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Absolute Maximum Ratings

(TA=25°C)

Parameter	Symbol	Value	Unit
Forward current	If	30	mA
Reverse voltage	Vr	5	V
Power dissipation	Pd	120	mW
Operating temperature range	Top	-20~+80	°C
Storage temperature range	Tstg	-20~+80	°C
Peak pulsing current (1/8 duty f=1kHz)	Ifp	125	mA

Electro-optical Characteristics

(TA=25°C)

Parameter	Test Condition	Symbol	Value			Unit
			Min	Typ	Max	
CIE Coordinates	If=20mA	X Y	-- --	0.3 0.3	--	--
Forward voltage	If=20mA	Vf	--	3.5	4.0	V
Luminous intensity	*1 If=20mA	Iv	--	1200	--	mcd
Viewing angle at 50% Iv	If=10mA	2θ/2	--	120	--	Deg
Reverse current	Vr=5V	Ir	--	--	10	µA

* 1 Note: Luminous intensity tolerances are ±10%.



RoHS
Compliant

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OPTICAL CHARACTERISTICS CURVES

(25° C Ambient Temperature Unless Otherwise Noted)

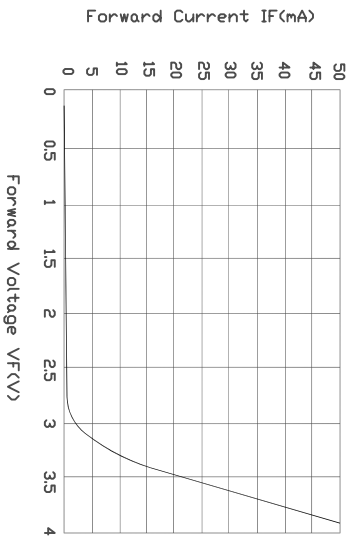


Fig. 1 IF-VF (Ta=25°C)

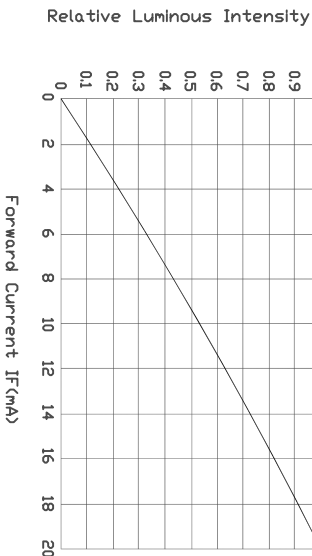


Fig. 2 Relative Luminous Intensity-IIF (Ta=25°C)

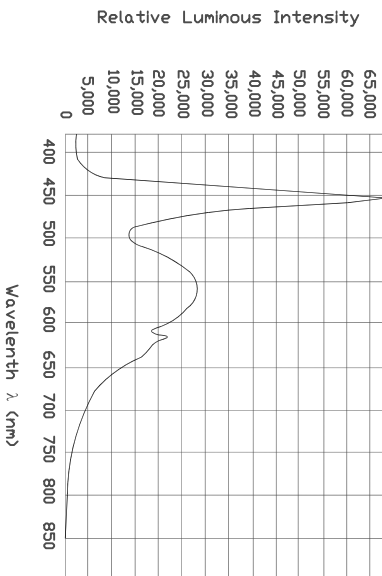


Fig. 3 Wavelength Characteristics (Ta=25°C)

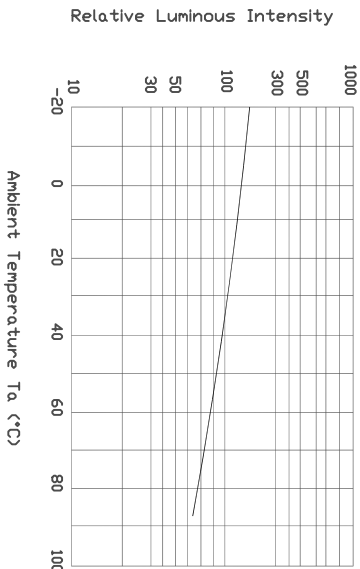


Fig. 4 Relative Luminous Intensity-Ta

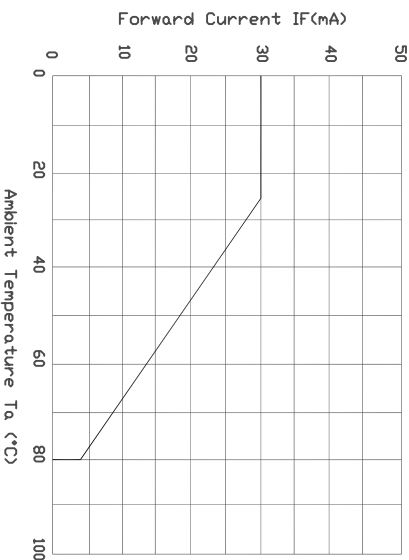
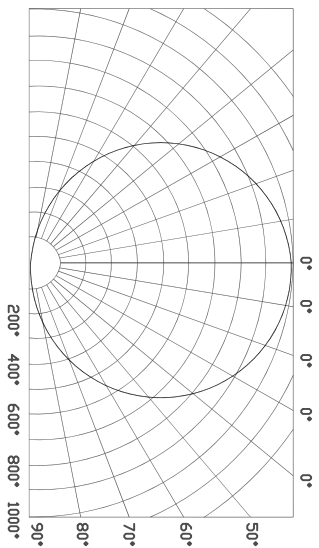


Fig. 5 IF-Ta

Directive Characteristics (Ta=25°C)



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SCALE:	NTS

Multi Color LED		ELECTRONIC FILE	
02P5956		REV	
XX		XX	
SHEET: 1		OF 1	



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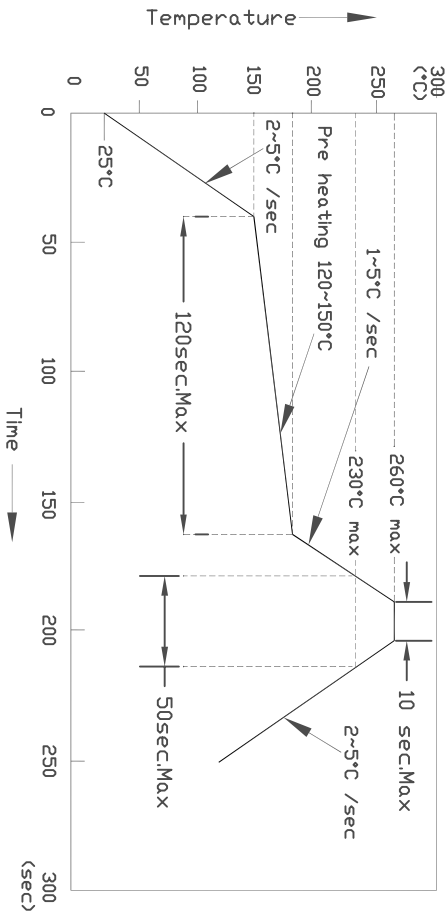
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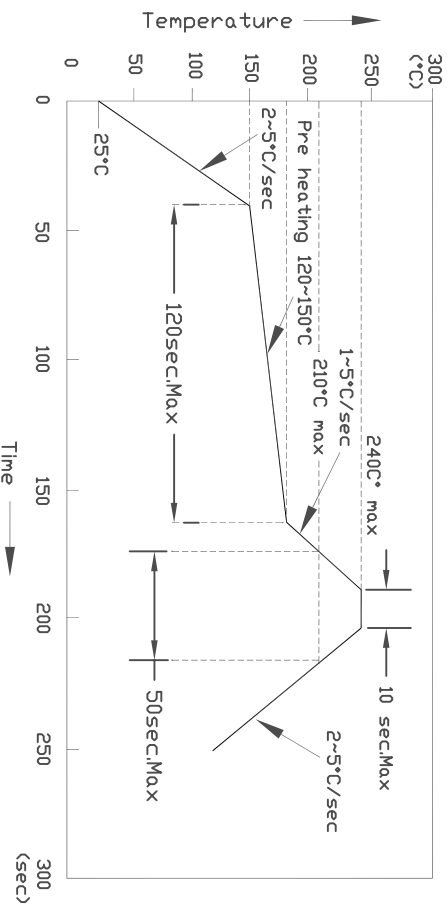
Reflow Profile

IR Reflow Soldering Profile
Lead Free Solder

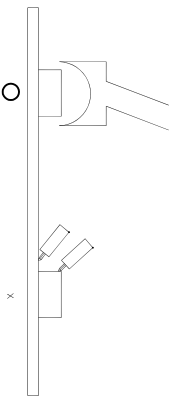


- Reflow Temp/Time

IR Reflow Soldering Profile
Lead Solder



- Soldering iron
 - Basic Spec is ≤ 5 sec when 260°C. If temperature is higher, time should be shorter (+10°C \rightarrow -1sec). Power dissipation of iron should be smaller than 15W and Temperatures should be controllable. Surface temperature of the device should be under 230°C.
- Rework
 - Customer must finish rework within 5 sec under 260°C.
 - The head of iron can not touch copper foil
 - Tin-head type is preferred.



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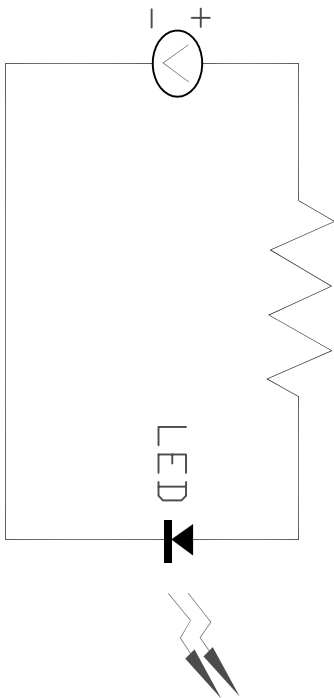
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■ Test Circuit



■ Handling Precautions

1. Over-current-proof

Customer must apply resistor for protection; otherwise slight voltage shift will cause big current change (Burn out will happen).

2. Storage

2.1 It is recommended to store the products in the following conditions:

Humidity: 60% RH, Max.

Temperature: 5°C~30°C (41°F~86°F)

2.2 Shelf life in sealed bag: 12 month at <5°C~30°C and <30% RH, after the package is Opened, the products should be used within a week or they should be keeping to stored at ≤ 20 RH, with zip-lock sealed.

3. Baking

It is recommended to baking before soldering when the pack is unsealed after 72hrs.

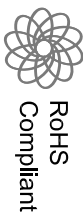
The Conditions are as followings:

3.1 60±3°C x(12~24hrs) and <5%RH, taped reel type

3.2 100±3°C x(45min~1hr), bulk type

3.3 130±3°C x(15~30min), bulk type

When you discover that the desiccant in the package has a pink color (normal=blue), you should treat them in the same conditions as (3.1-3.3)



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