



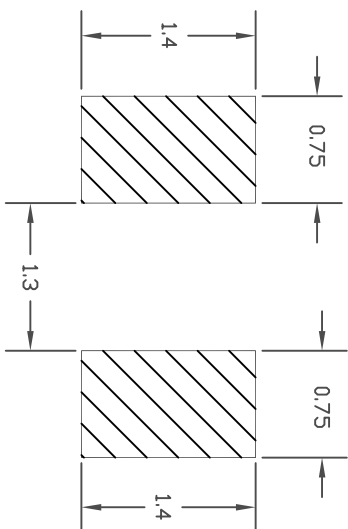
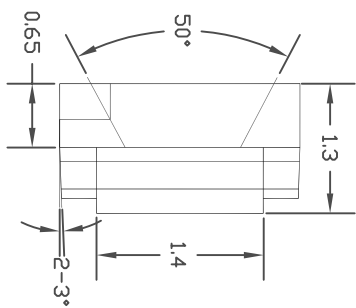
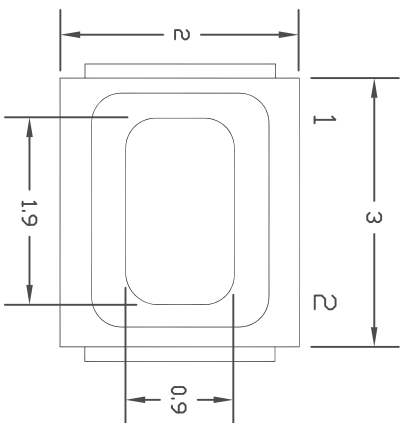
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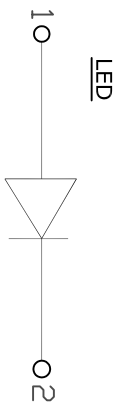
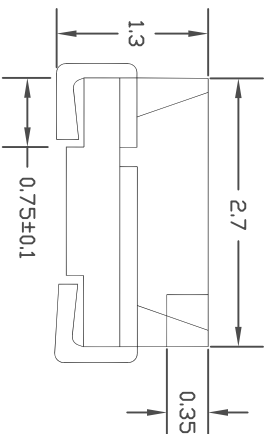
SPC-F005.DWG

REVISIONS				DOC. NO.	SPC-F005	*	Effective	7/8/02	*	Doc No	1398
DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVI	DATE			
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XXXX	XXXX		XXXX	23-09-08	XXXX	23-09-08	XXXX	23-09-08			

Package Outlines



Recommended Pad Layout



ITEM	MATERIALS
Resin (mold)	Epoxy
Bonding Wire	ø25µm Au
Lens color	Water clear
Printed circuit board	BT (white)
Dice	Alln Gap
Emitted color	RED

- NOTES:
 1. All dimensions are in millimeters (inches);
 2. Tolerance are±0.1mm(0.004inch) unless otherwise noted.



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DRAWING TITLE:

Multi Color LED

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	MC24158	02P5953	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	100	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	
Wavelength at peak emission	If=20mA	λ_{peak}	620	630	635	nm
Forward voltage	If=20mA	Vf	--	2.0	2.4	V
Luminous intensity	*1 If=20mA	Iv	90	170	--	mcd
Wavelength at domain emission	If=20mA	λ_d	--	624	--	nm
Viewing angle at 50% Iv	If=10mA	2 $\theta_{1/2}$	--	120	--	Deg
Reverse current	Vr=5V	Ir	--	--	10	μ A

* 1 Note: Luminous intensity tolerances are $\pm 10\%$



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			23-09-08	XXXX
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OPTICAL CHARACTERISTIC CURVES

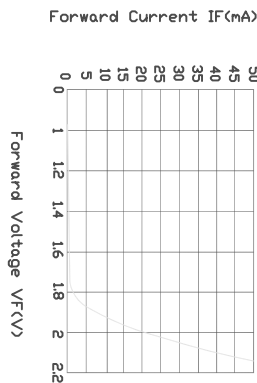


Fig.1 IF-VF(Ta=25°C)

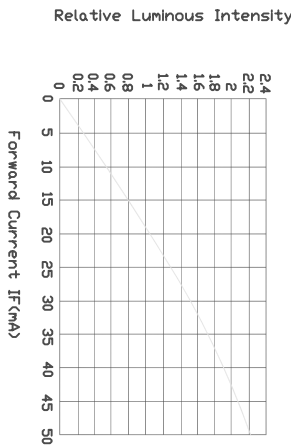


Fig.2 Relative Luminous Intensity-IF (Ta=25°C)

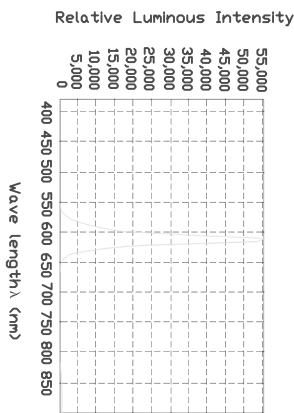


Fig.3 Wavelength Characteristics (Ta=25°C)

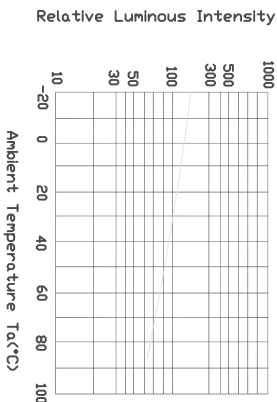


Fig.4 Relative Luminous Intensity-Ta

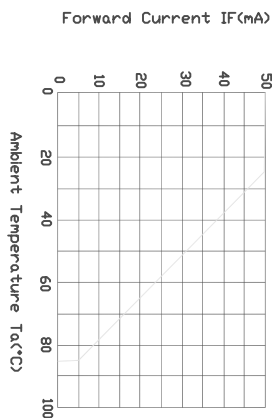
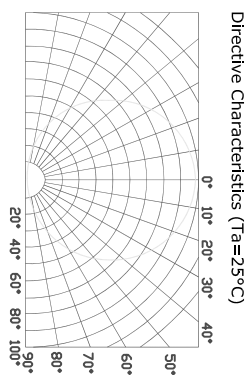


Fig.5 IF-Ta



Directive Characteristics (Ta=25°C)



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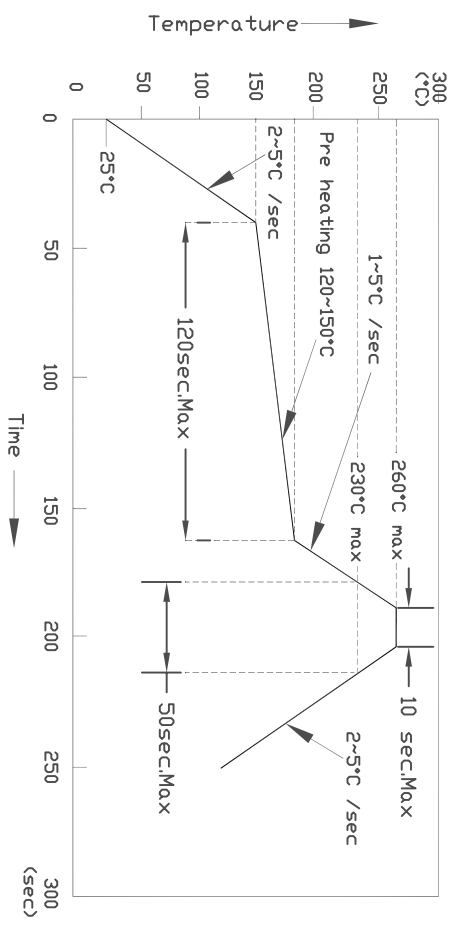
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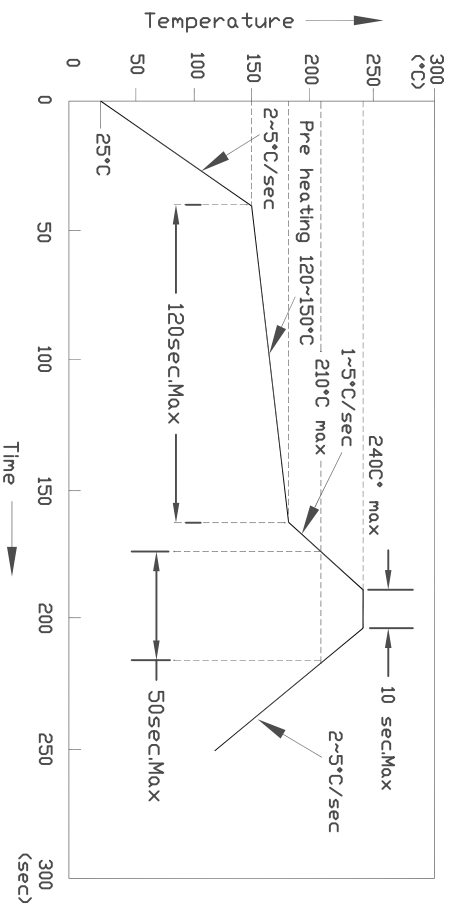
Reflow Profile

IR Reflow Soldering Profile
Lead Free Solder

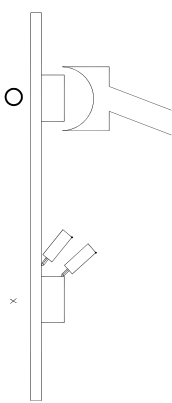


- Reflow Temp/Time

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
 - Wim-head type is preferred.



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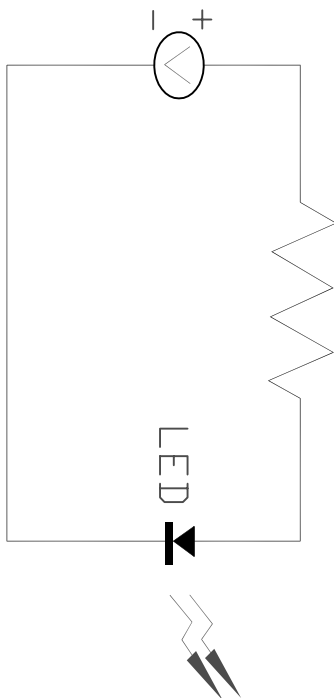
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■ Test Circuit



■ 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% R.H. 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% R.H. after the package is Opened, the products should be used within a week or they should be keeping to stored at ≤ 20 R.H. with zip-lock sealed.

3. Baking

It is recommended to baking before soldering when the pack is unsealed after 72hrs. The Conditions are as followsings:

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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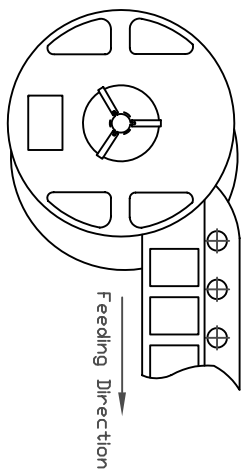
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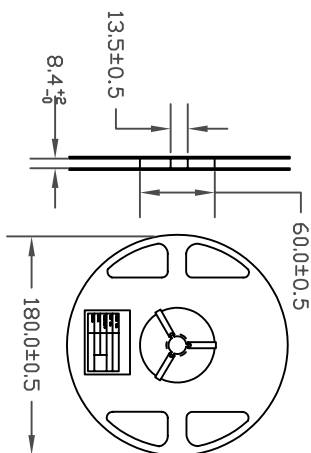
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XXXX	XXXX		XXXX	22-09-08	XXXX	22-09-08	XXXX	22-09-08	

SMD Chip LED Lamps Packaging Specifications

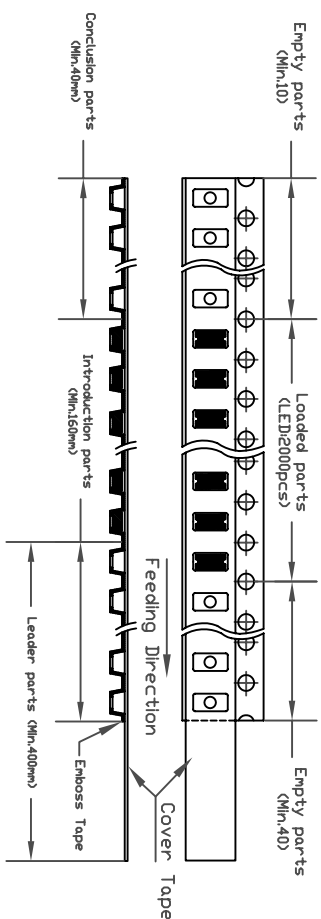
• Feeding Direction



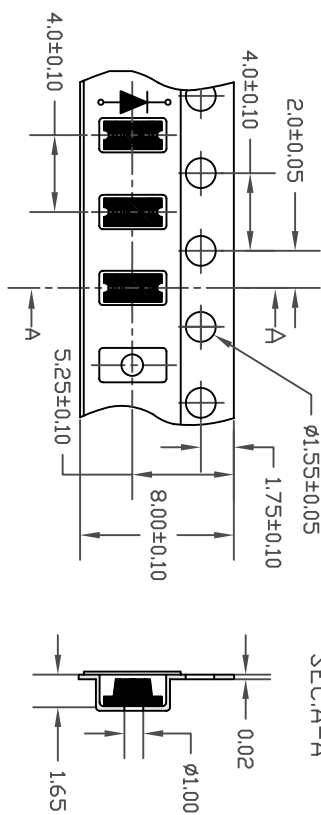
• Dimensions of Reel (Unit: mm)



• Arrangement of Tape



• Dimensions of Tape (Unit: mm)



- NOTES
1. Empty component pockets are sealed with top cover tape
 2. The maximum number of missing lamps is two
 3. The cathode is oriented towards the tape sprocket hole in accordance with ANSI/EIA RS-481 specifications
 4. 2,000 pcs/Reel



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NTS	
ELECTRONIC FILE	REV
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SHEET:	DF
1	1