



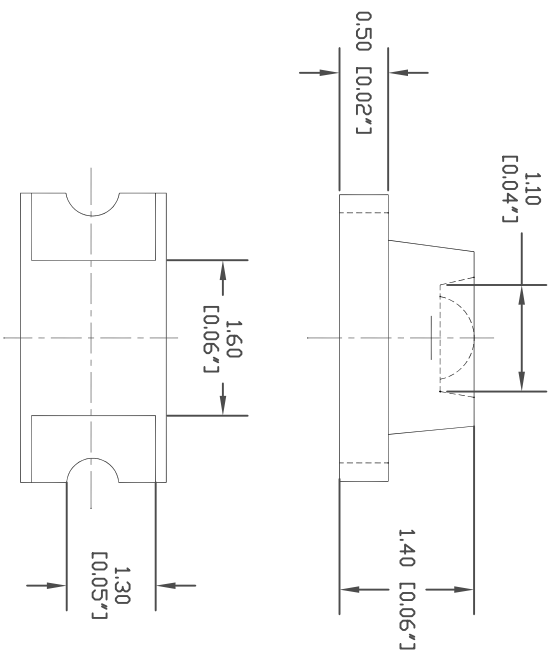
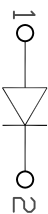
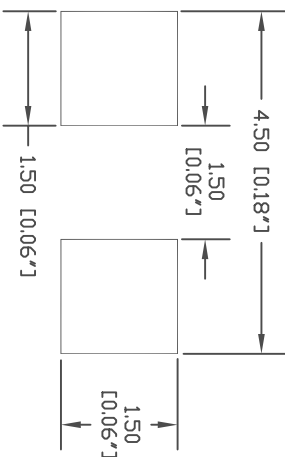
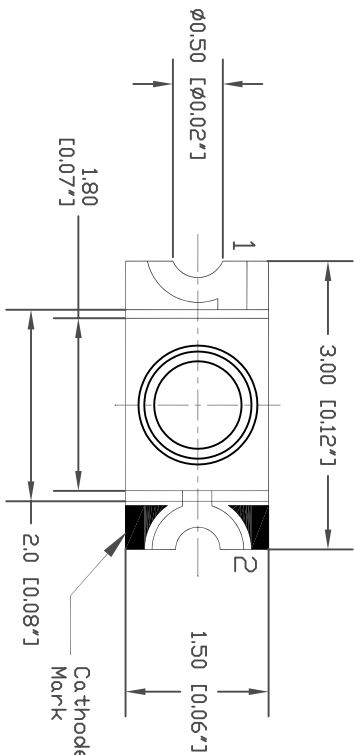
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SPC-F005.DWG

REVISONS		DCI. NO.	SPC-F005	*	Effective	7/8/02	*	DCP No	1398
DOP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVI	DATE	
XX	XX	XXXX	XXXX	22-09-08	XXXX	22-09-08	XXXX	22-09-08	
XXXX	XXXX		XXXX	22-09-08	XXXX	22-09-08	XXXX	22-09-08	

**Package Outlines**



ITEM	MATERIALS
Resin (mold)	Epoxy
Bonding Wire	φ25 μAu
Lens color	Water transparent
Printed circuit board	BT (White)
Dice	InGaN/SiC
Emitted color	Green

NOTES:  
 1. All dimensions are in millimeters (inches)  
 2. Tolerances are ±0.1mm (0.004inch) unless otherwise noted.  
 Attention:  
 Observe Precautions For Handling Electrostatic Sensitive Devices



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DRAWING TITLE:		Multi Color LED	
SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	MC24156	02P5951	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	Pa	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
Wavelength at peak emission	If=20mA	$\lambda_{peak}$	500	505	515	nm
Spectral half bandwidth	If=20mA	$\Delta\lambda$	--	40	--	nm
Dominant wavelength	If=20mA	$\lambda_{dom}$	--	505	--	nm
Forward voltage	If=20mA	Vf	--	3.5	4.0	V
Luminous intensity	If=20mA	Iv	--	450	--	mcd
Viewing angle at 50% Iv	If=10mA	$2\theta/2$	--	40	--	Deg
Reverse current	Vr=5V	Ir	--	--	10	$\mu$ A

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



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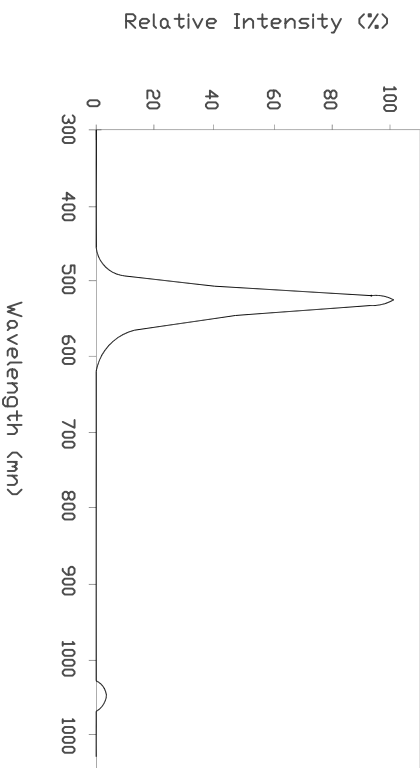
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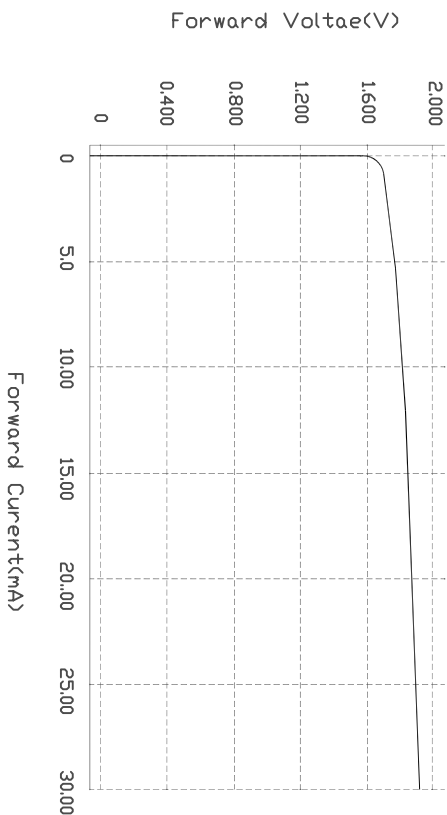
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### OPTICAL CHARACTERISTIC CURVES

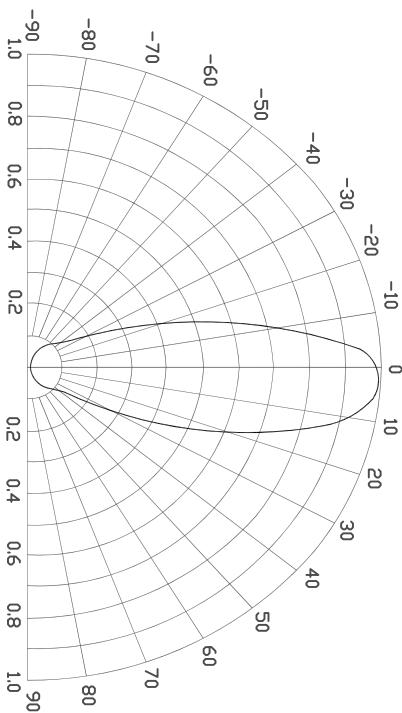
Relative Intensity vs Wavelength



Forward Current vs Forward Voltage



Directive Characteristics



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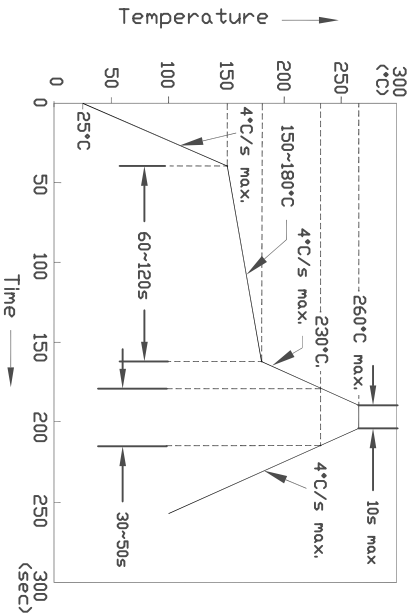
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• Reflow Temp/Time

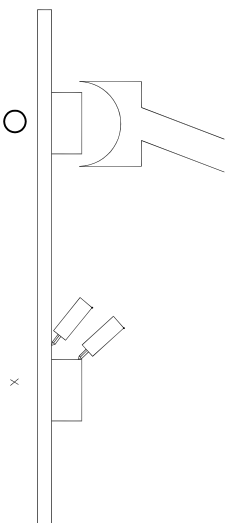


• Soldering Iron

Basic Spec is ≤5sec when 260°C. If temperature is higher, time should be shorter (+10°C → -1sec). Power dissipation of iron should be smaller than 15W and temperature should be controllable. Surface temperature of the device should be under 230°C.

• Rework

1. Customer must finish rework within 5 sec under 260°C.
2. The head of iron can not touch copper foil
3. Twin-head type is preferred.



■ 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.

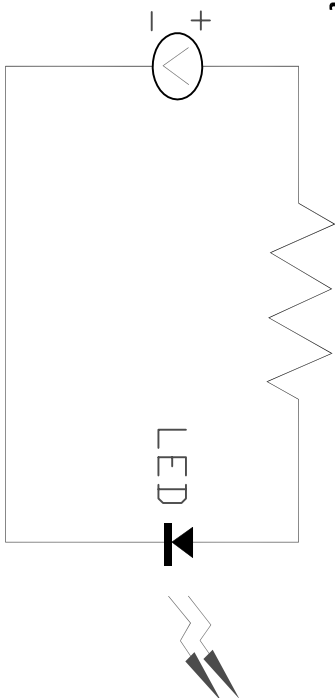
3. Baking

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)

■ Test Circuit



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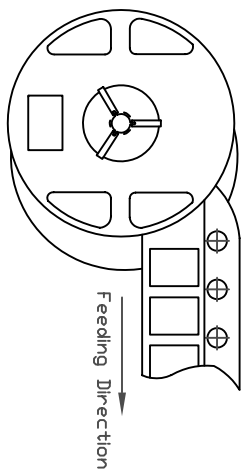
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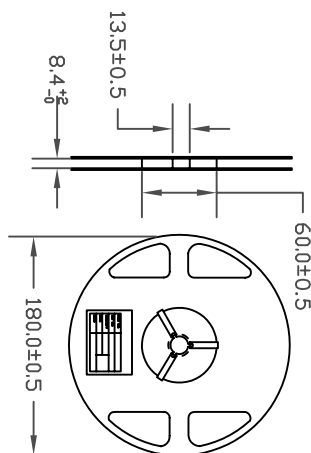
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### SMD Chip LED Lamps Packaging Specifications

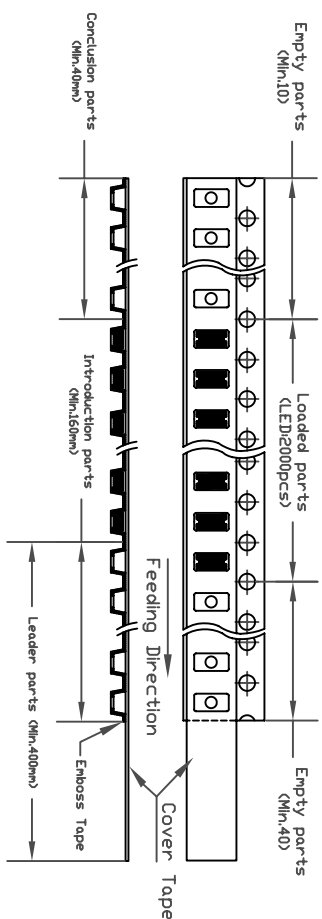
• Feeding Direction



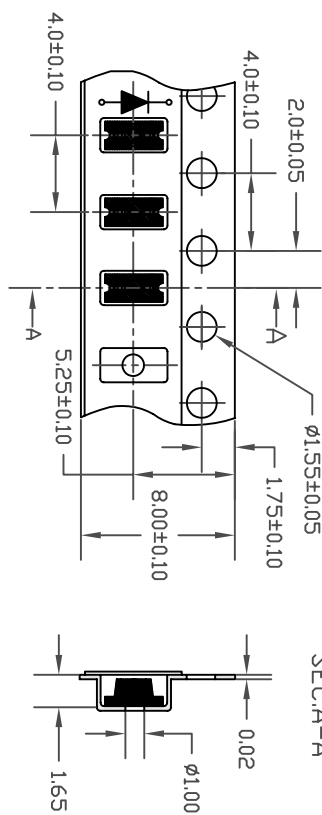
• Dimensions of Reel (Unit: mm)



• 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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