



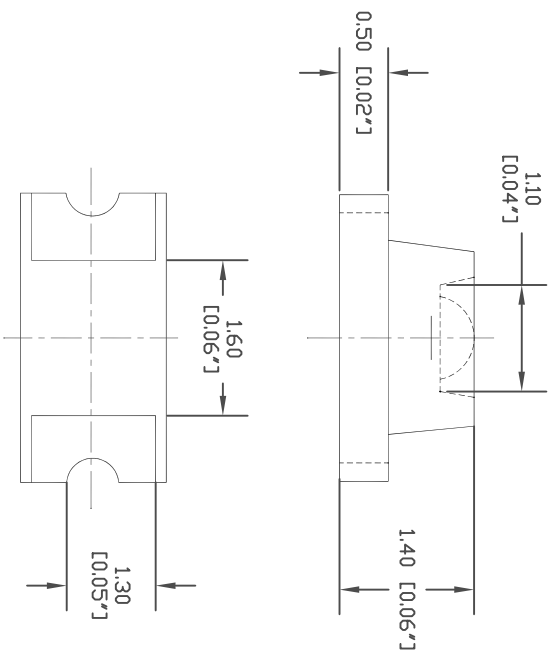
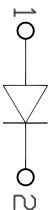
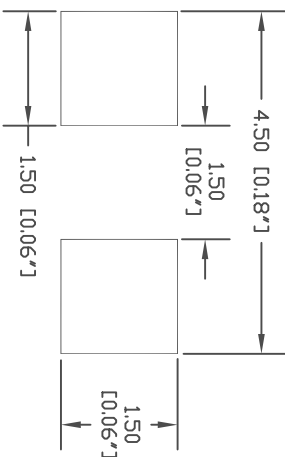
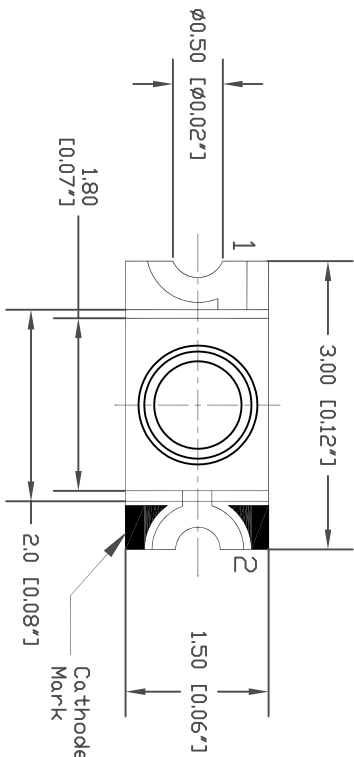
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SPC-F005.DWG

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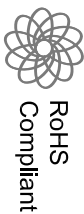
**Package Outlines**



ITEM	MATERIALS
Resin (mold)	Epoxy
Bonding Wire	ø25µm Au
Lens color	Water transparent
Printed circuit board	BT (White)
Dice	InGaN/SiC
Emitted color	Green

**NOTES:**

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



RoHS  
Compliant

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**DRAWING TITLE:**

Multi Color LED

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	MC24157	02P5952	XX
SCALE:	NTS	U.D.M.: INCHES [mm]	SHEET: 1 OF 1



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REVISONS		DOC. NO.	SPC-F005	*	Effective	7/8/02	*	DCP No	1398
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XXXX	XXXX		XXXX	22-09-08	XXXX	22-09-08	XXXX	22-09-08	

**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	Max	
Wavelength at peak emission	If=20mA	$\lambda_{peak}$	--	470	nm
Spectral half bandwidth	If=20mA	$\Delta\lambda$	--	25	nm
Dominant wavelength	If=20mA	$\lambda_{dom}$	--	470	nm
Forward voltage	If=20mA	Vf	--	3.5	V
Luminous intensity	*I1 If=20mA	Iv	--	160	mcd
Viewing angle at 50% Iv	If=10mA	2 $\theta_{1/2}$	--	40	Deg
Reverse current	Vr=5V	Ir	--	10	$\mu$ A

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



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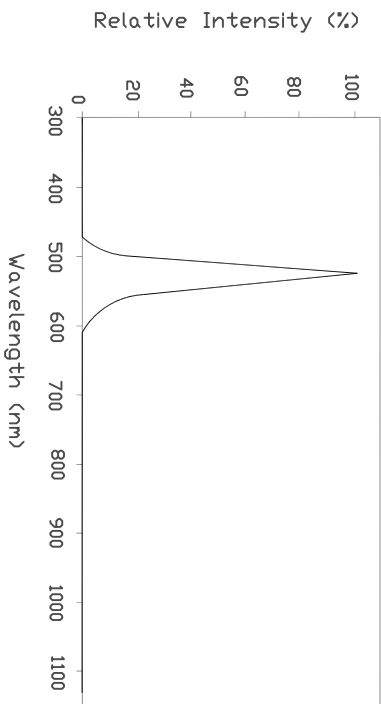
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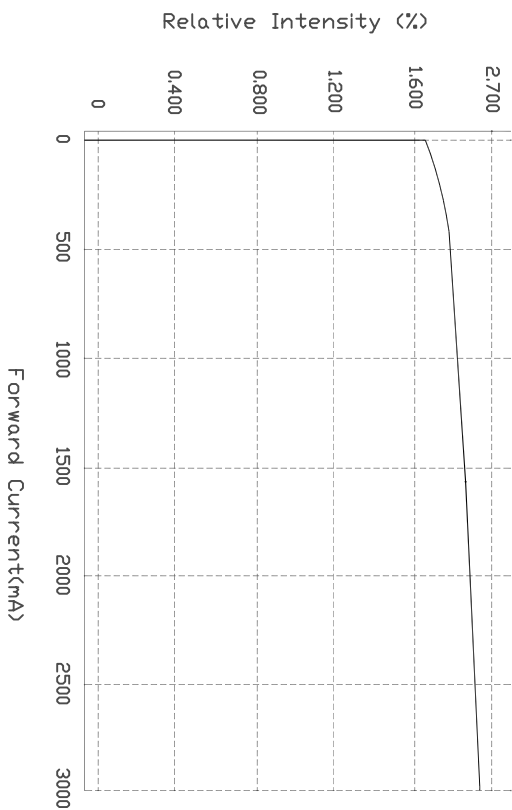
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### OPTICAL CHARACTERISTIC CURVES

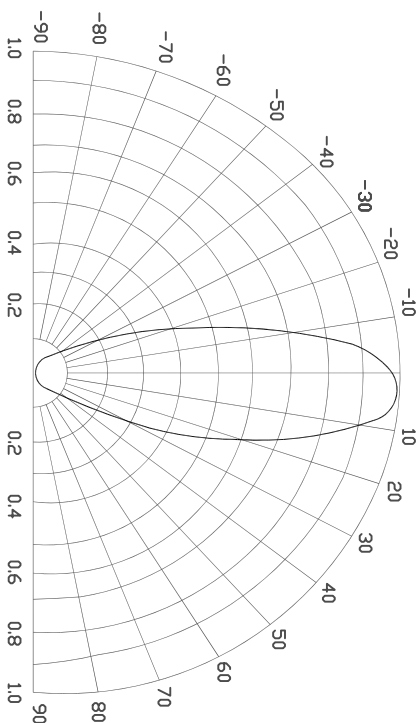
Relative Intensity vs. Wavelength



Relative Intensity vs. Wavelength



Directive Characteristics



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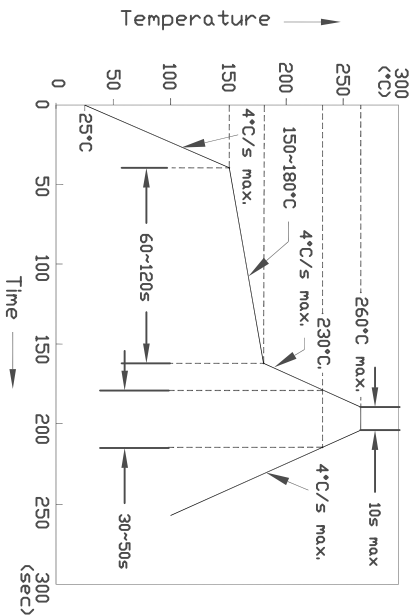
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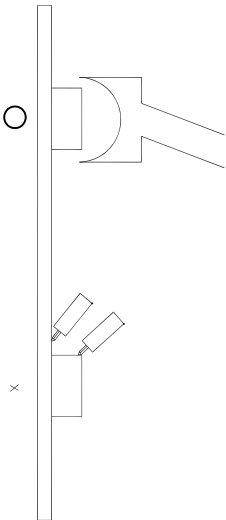
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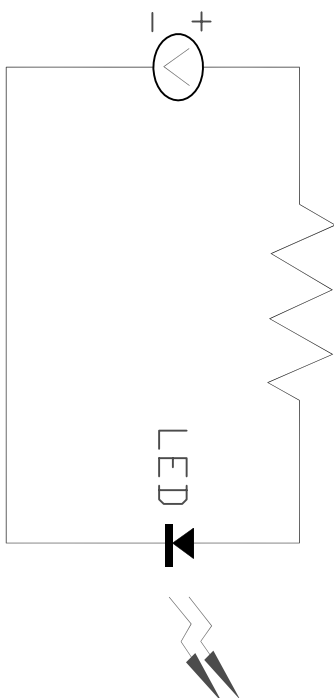
Reflow Temp/Time



- Soldering Iron: 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.



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 (41F-86F)
  - 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 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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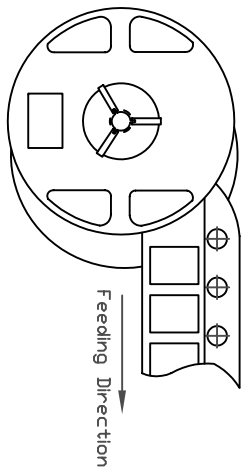
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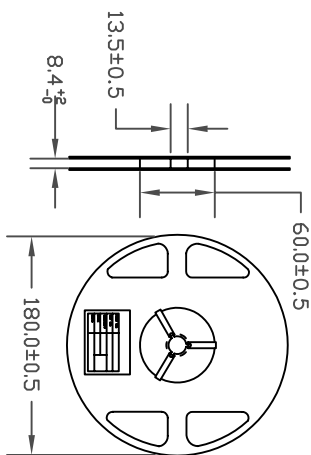
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### SMD Chip LED Lamps Packaging Specifications

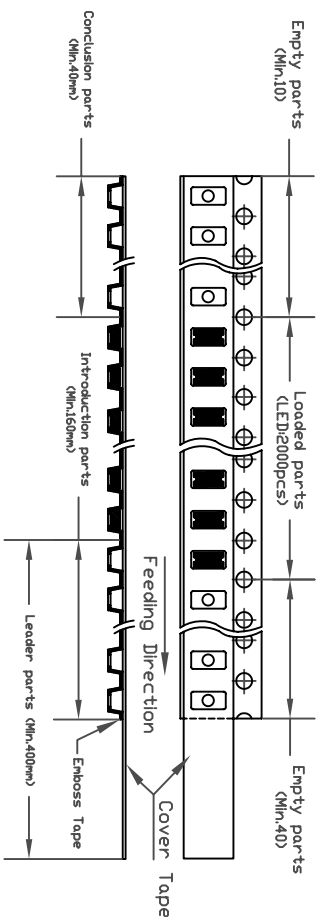
• Feeding Direction



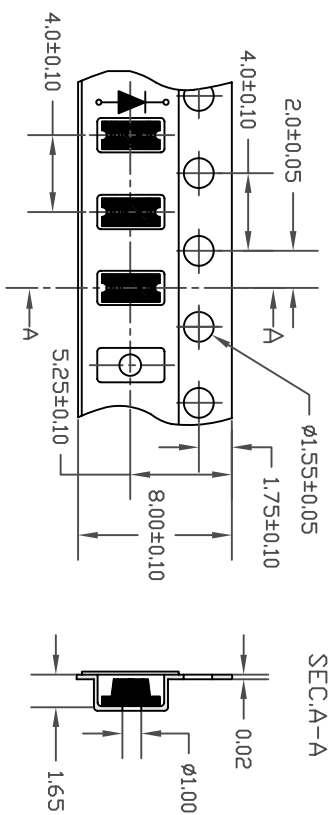
• Dimensions of Reel (Unit: mm)



• 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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