



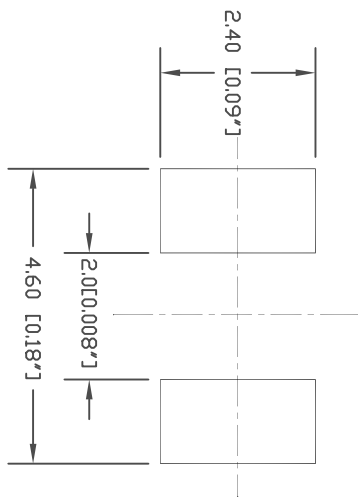
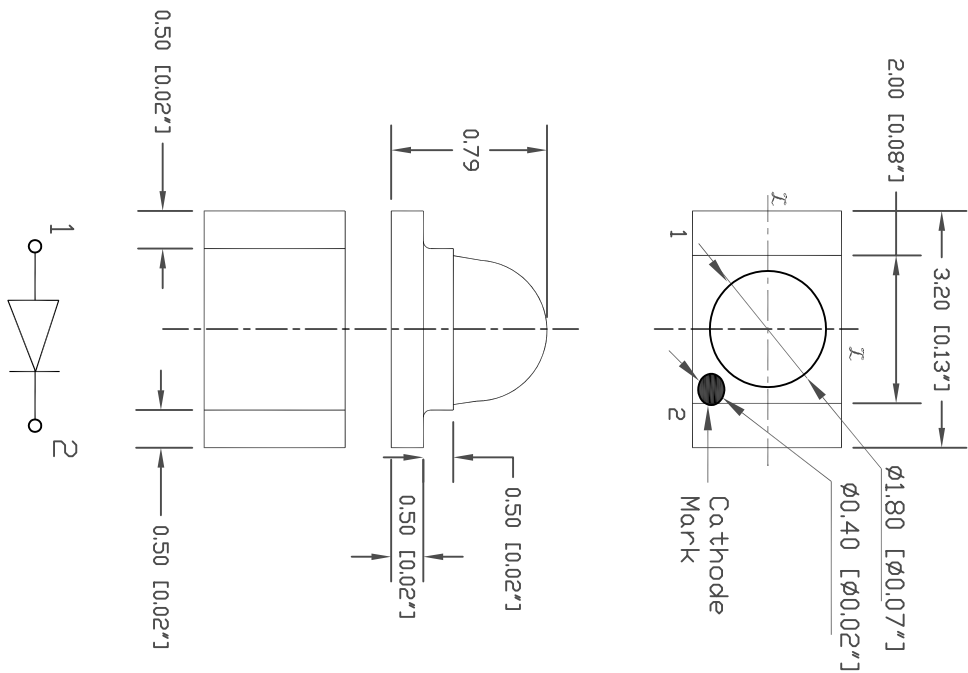
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SPC-F005JLVG

REVISIONS		DOC. NO.	SPC-F005	Effective	7/8/02	DCP No	1398	
DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVI	DATE
XX	XX	XXXX	XXXX	10-09-08	XXXX	10-09-08	XXXX	10-09-08
XXXX	XXXX		XXXX	10-09-08	XXXX	10-09-08	XXXX	10-09-08

Package Outlines



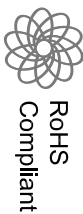
ITEM	MATERIALS
Resin (mold)	Epoxy
Bonding Wire	$\phi 25 \mu\text{m Au}$
Lens color	Water Clear
Printed circuit board	BT (white)
Dice	InGaN/SiC
Emitted color	green

NOTES

- All dimensions are in millimeters (inches);
- Tolerances are $\pm 0.1\text{mm}$ (0.004inch) unless otherwise noted.

ATTENTION

Observe Precautions For Handling Electrostatic Sensitive Devices



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XXXX	10-09-08
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XXXX	10-09-08
APPROVED BY:	DATE:
XXXX	10-09-08

DRAWING TITLE:		SCALE:	U.D.M.	SHEET:	DF
Multi-Color LED		NTS	INCHES [mm]	1	1
SIZE	DWG. NO.	ELECTRONIC FILE	REV		
A	MC24148	02P5943	XX		



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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	-40~+100	°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}	500	510	515	Nm
Spectral half bandwidth	If=20mA	$\Delta\lambda$	--	20	--	Nm
Dominant wavelength	If=20mA	λ_{dom}	--	505	--	Nm
Forward voltage	If=20mA	Vf	--	3.5	4.0	V
Luminous intensity	If=20mA	Iv	--	900	--	mcd
Viewing angle at 50% Iv	If=10mA	2 θ 1/2	--	20	--	deg
Reverse current	Vr=5V	Ir	--	--	10	μ A



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DRAWING TITLE:

Multi-Color LED

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	MC24148	02P5943	XX
SCALE:	NTS	U.D.M.: INCHES [mm]	SHEET: 1 OF



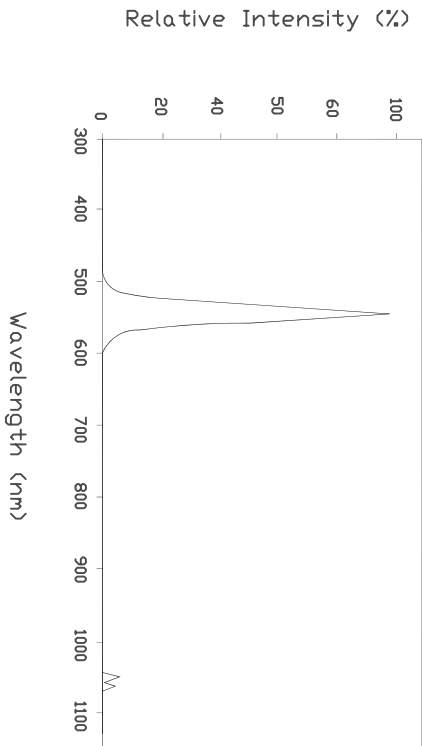
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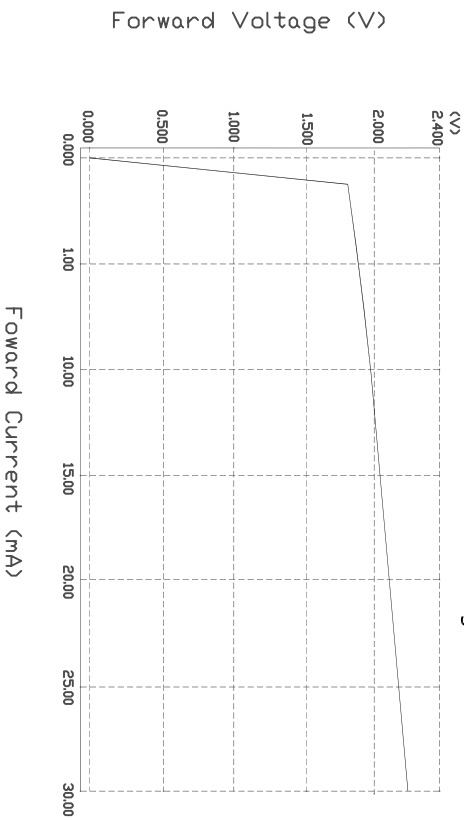
REVISIONS		DOC. NO.	SPC-F005	*	Effective	7/8/02	*	Doc No	1398
DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRV	DATE	
XX	XX	XXXX	XXXX	16-09-08	XXXX	16-09-08	XXXX	16-09-08	
XXXX	XXXX		XXXX	16-09-08	XXXX	16-09-08	XXXX	16-09-08	

OPTICAL CHARACTERISTIC CURVES

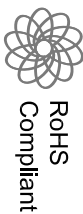
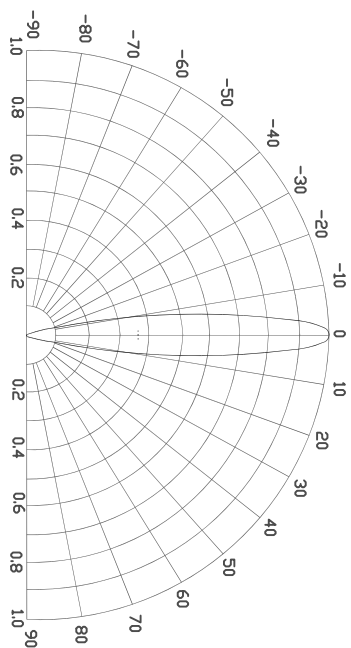
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



Directive Characteristics



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APPROVED BY:	XXXX	DATE:	16-09-08

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SCALE:	NTS	U.D.M:	INCHES [mm]
SHEET:	1	OF	1

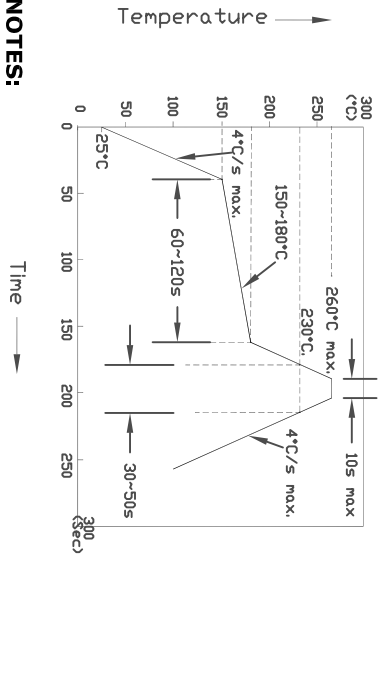


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REVISONS		DOC. NO.	SPC-F005	*	Effective	7/8/02	*	Doc No	1398
DOP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVI	DATE	
XX	XX	XXXX	XXXX	24-09-08	XXXX	24-09-08	XXXX	24-09-08	
XXXX	XXXX		XXXX	24-09-08	XXXX	24-09-08	XXXX	24-09-08	

• Reflow Temp/Time



NOTES:

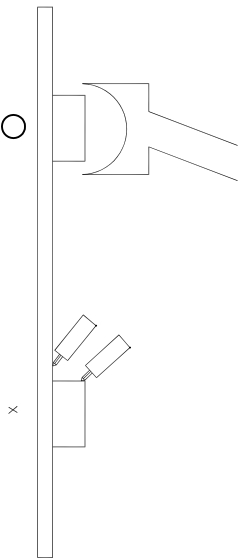
1. We recommend the reflow temperatures 245°C (±5°C), the maximum soldering temperature should be limited to 260°C. It don't cause stress to the epoxy resin while it is exposed to high temperature.
2. Number of reflow process shall be 2 times or less.

■ Soldering Iron

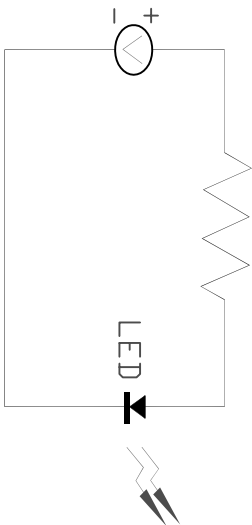
Basic Spec is ≤ 5 sec when 260°C. If temperature is higher, time should be shorter (+10°C \rightarrow -1sec). Power dissipation of iron should be smaller than 15W and Temperature should be controllable. Surface temperature of the device should be under 230°C.

■ 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 resistors 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



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SCALE:	NTS	U.D.M:	INCHES [mm]
		SHEET:	1 OF



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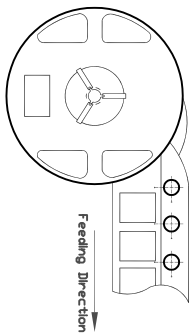
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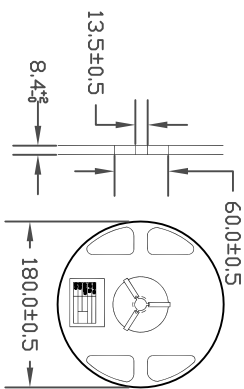
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XXXX	XXXX		XXXX	24-09-08	XXXX	24-09-08	XXXX	24-09-08	

SMD Chip LED Lamps Packaging Specifications

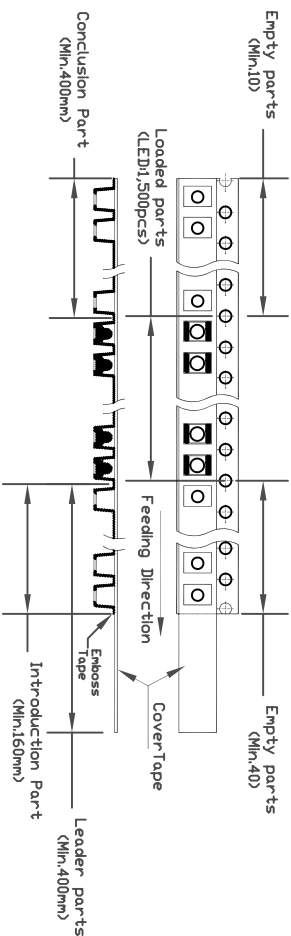
Feeding Direction



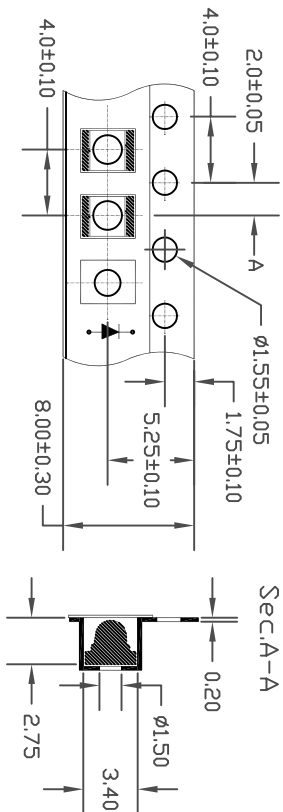
Dimensions of Reel (Unit: mm)



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. 1,500 pcs/Reel



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APPROVED BY:	DATE:				
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