SPC TECHNOLOGY

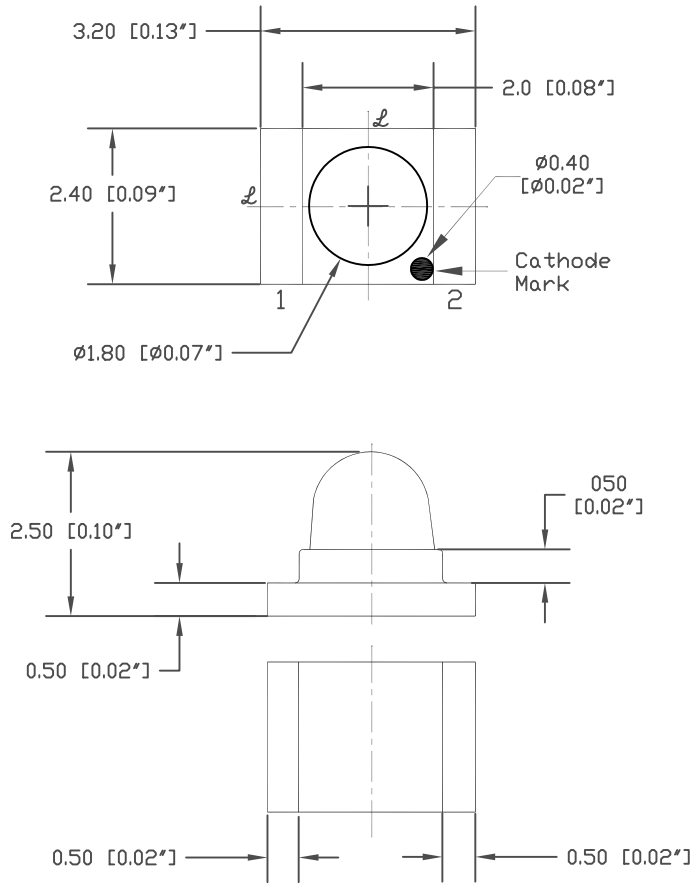
SPC-F005.DWG

REVISIONS

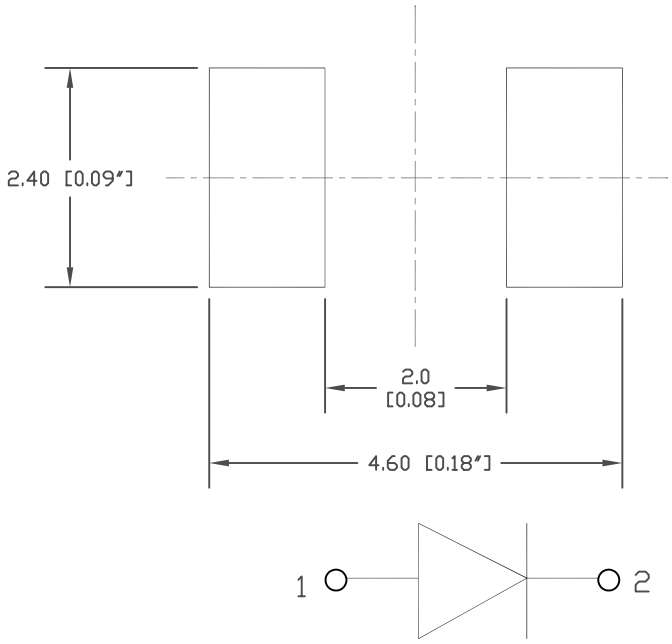
DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1398

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	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

Package Outlines



RECOMMENDED PAD LAYOUT



NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerances are 0.1mm (0.04inch) unless otherwise noted

Attension: Observep Precautions For Handling Electrostatic Sensitive Devices

ITEM	MATERIALS
Resin (mold)	Epoxy
Bonding Wire	ø25μmAu
Lens color	Water clear
Printed circit board	BT (white)
Dice	InGaN/SiC
Emitted color	Green

RoHS Compliant

TOLERANCES:
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DRAWING TITLE: Multi Color LED

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	MC24147	02P5942	XX

SCALE: NTS | U.O.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	-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	λpeak	520	527	535	Nm
Spectral half bandwidth	If=20mA	Δλ	--	20	--	Nm
Dominant wavelength	If=20mA	λdom	--	525	--	Nm
Forward voltage	If=20mA	Vf	--	3.5	4.0	V
Luminous intensity *1	If=20mA	Iv	--	900	--	mcd
Viewing angle at 50% Iv	If=10mA	2θ1/2	--	20	--	deg
Reverse current	Vr=5V	Ir	--	--	10	μA

RoHS Compliant

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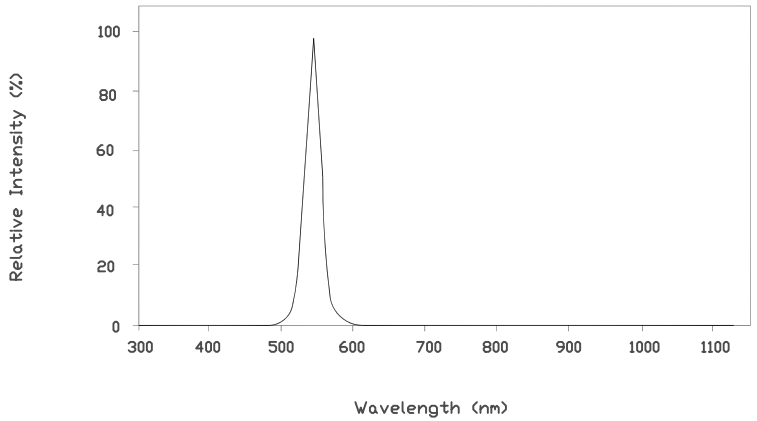
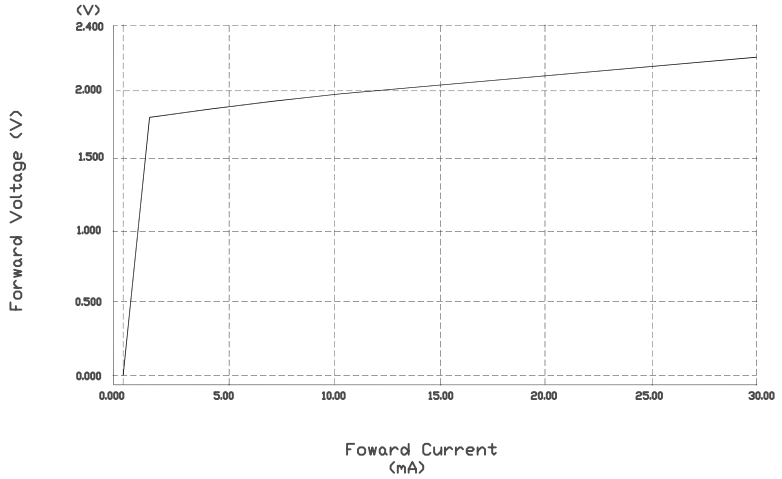
OPTICAL CHARACTERISTIC CURVES

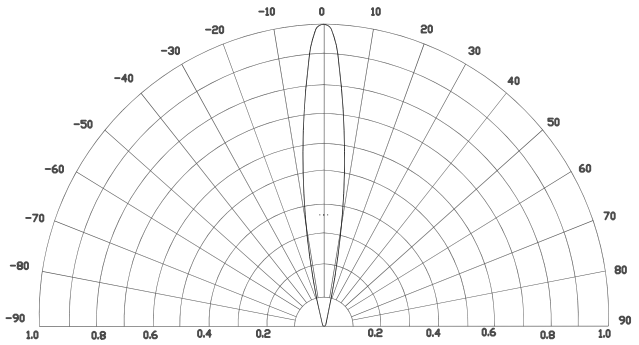
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



Directive Characteristics



RoHS Compliant

DISCLAIMER:
ALL STATEMENTS AND TECHNICAL INFORMATION CONTAINED HEREIN ARE BASED UPON INFORMATION AND/OR TESTS WE BELIEVE TO BE ACCURATE AND RELIABLE. SINCE CONDITIONS OF USE ARE BEYOND OUR CONTROL, THE USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR THE INTENDED USE AND ASSUME ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH.

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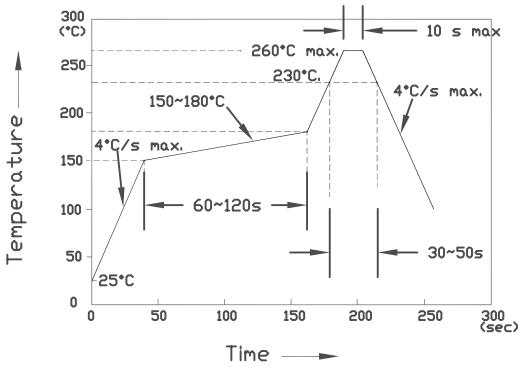
- **Reflow Temp/Time**



- NOTES:

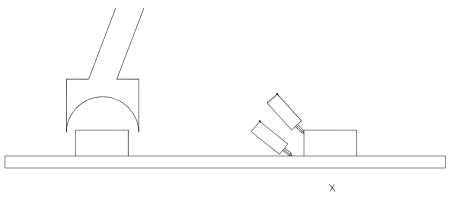
1. We recommend the reflow temperature 245°C (±5°C), the maximum soldering temperature should be limited to 260°C.
2. don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

- Soldering iron

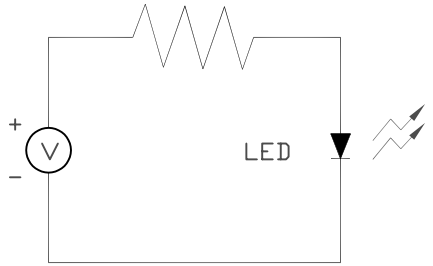
Basic Spec is ≤5sec when 260°C. If temperature is higher, time should be shorter
(+10°C → -1sec). Power dissipation of iron should be smaller than 15W and Termperatures should be controllable. Surface temperature of the device should be under 230°C.

- 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% 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 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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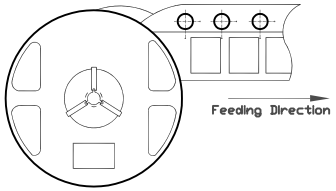
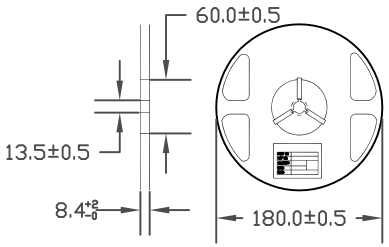
SMD Chip LED Lamps Packaging Specifications

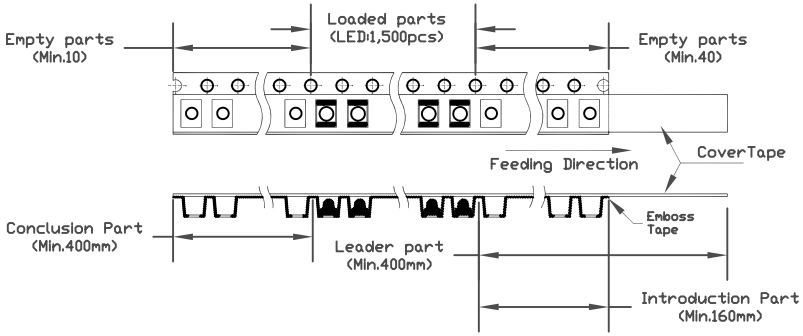
- Feeding Direction



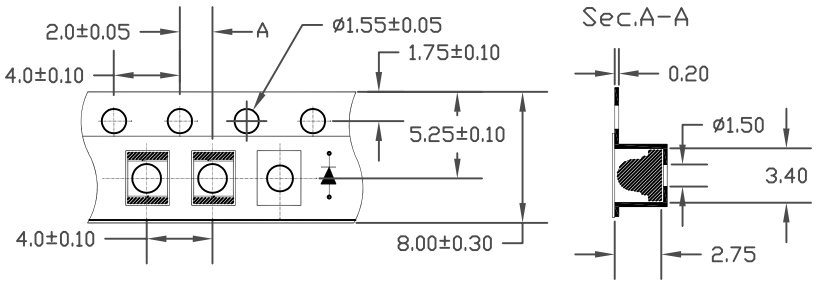
- Dimensions of Reel (Unit: mm)



- 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

RoHS Compliant

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