SPC TECHNOLOGY

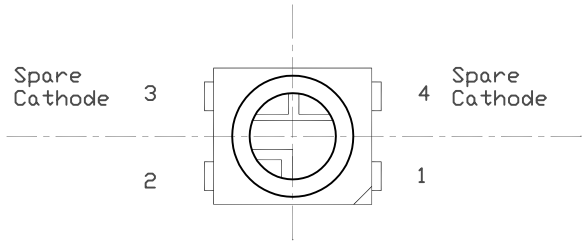
SPC-F005.DWG

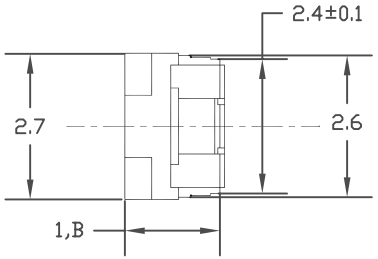
REVISIONS

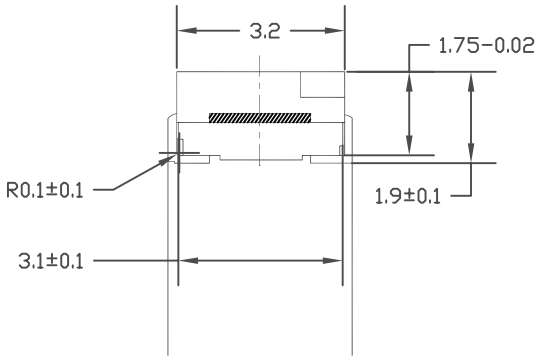
DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1398

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
XX	XX	XXXX	XXXX	20-09-08	XXXX	20-09-08	XXXX	20-09-08
XXXX	XXXX		XXXX	20-09-08	XXXX	20-09-08	XXXX	20-09-08

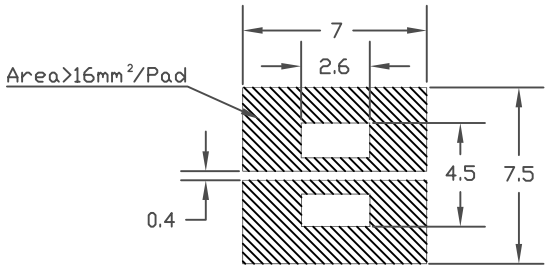
Package Outlines







RECOMMEND PAD LAYOUT



ITEM	MATERIALS
Resin	Epoxy
Bonding Wire	ø25μmAu
Lens color	Yellow
Dice	GaN/SiC
Emitted color	White

NOTES:
1. All dimensions are in millimeters (inches)
2. Tolerances are ±0.2mm (0.008inch) unless otherwise noted

RoHS Compliant

TOLERANCES:
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

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DRAWING TITLE: Multi-Color LED

SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	MC24189	02P5968	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	-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	
CIE Coordinates	If=20mA	X Y	0.2500 0.2241	-- --	0.3214 0.3700	--
Forward voltage	If=20mA	Vf	3.2	--	4.0	V
Luminous intensity	If=20mA	Iv	500	--	1250	mcd
Viewing angle at 50% Iv	If=10mA	2θ1/2	--	120	--	Deg
Reverse current	Vr=5V	Ir	--	--	10	μA

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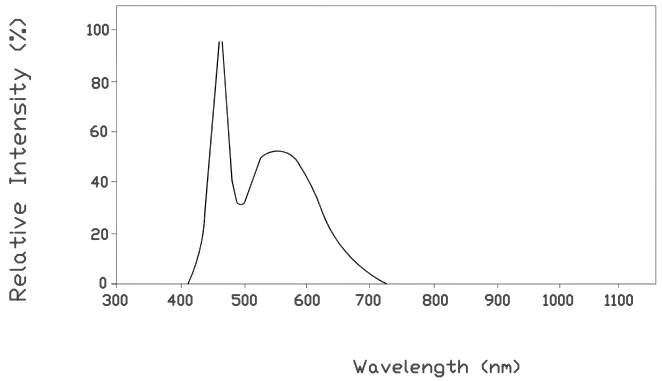
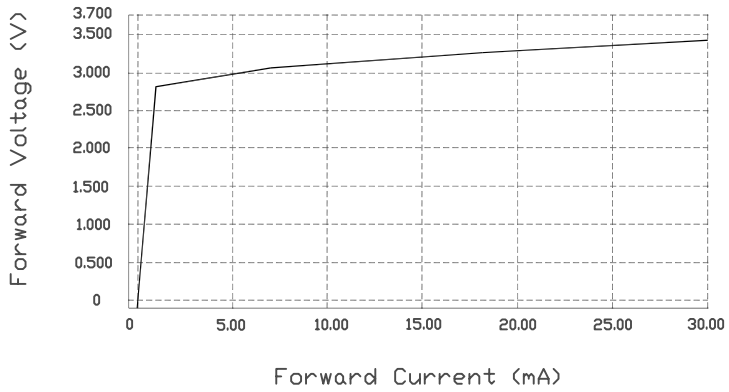
OPTICAL CHARACTERISTIC CURVES

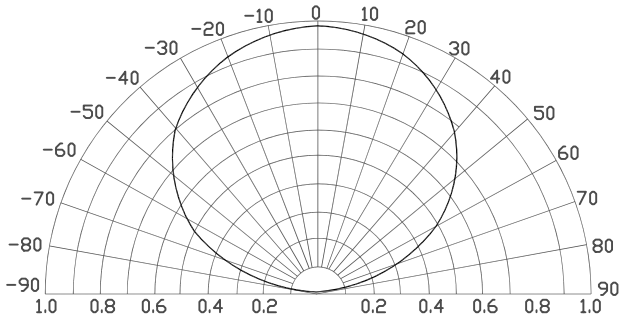
Relative Intensity vs. Wavelength



Forward Current vs. Forward Voltage



Directive Characteristics



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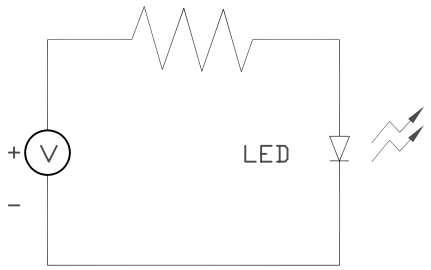
- **Test circuit**



- **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

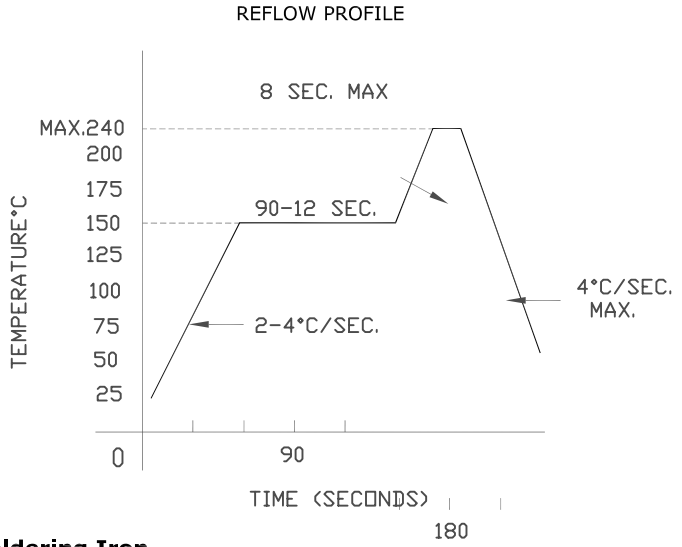
2.1 It is recommended to store the products in the following conditions: Humidity: 60% R.H. Max. Temperature : 5°C~30°C (41°F~86°F)

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

- **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 temperatures should be controllable. Surface temperature of the device should be under 230°C.

RoHS Compliant

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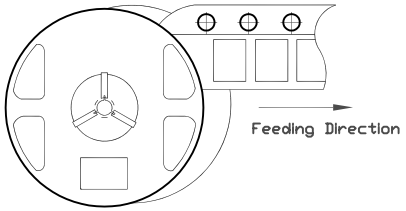
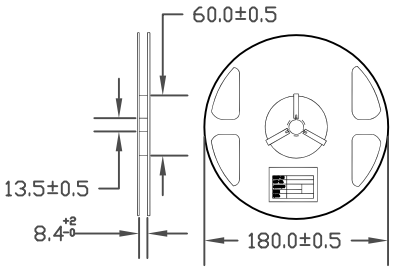
Single-Color High Performance SMD Top LEDs Packaging Specifications

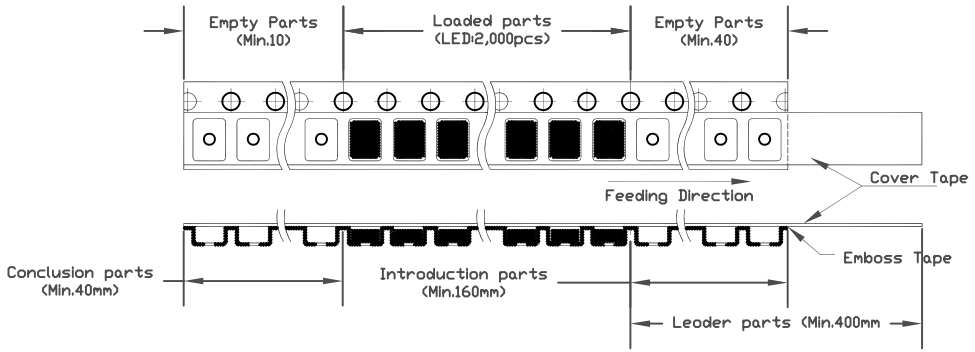
- Feeding Direction



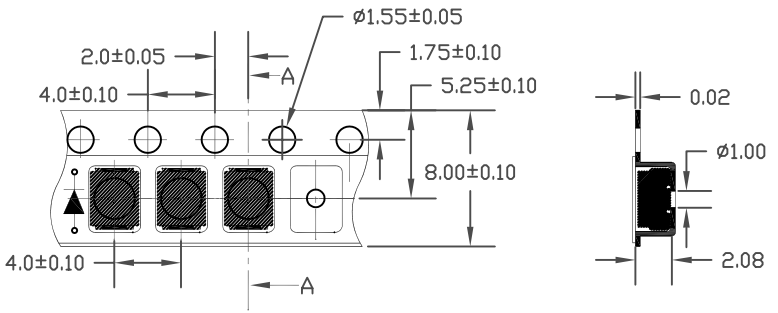
- Dimensions of Reel (Unit:mm)



- 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. 2,000pcs/Reel

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