

**Product carrier tape will be changed.
Product Change Notice issued on 01 May 2013.**

SpiceLEDTM

Like spice, its diminutive size is a stark contrast to its standout performance in terms of brightness, durability and reliability. Despite being the smallest in size yet the SpiceLEDTM packs a powerful performance and is a highly reliable design device. Its versatility enables its application in automotive appliances, key-pad illumination, hand-held devices such as PDAs, notebooks, compact back-lighting applications, consumer appliances, office equipment, audio and video equipment.

Features:

- > High brightness diffused surface mount LED.
- > Super wide viewing angle of 160°.
- > Equivalent to 0603 package outline. Copper lead-frame construction.
- > Qualified according to JEDEC moisture sensitivity Level 2.
- > Compatible to IR reflow soldering.
- > Environmental friendly; RoHS compliance.

Applications:

- > Backlighting (TFT LCD display), flash light, architectural lighting.



Optical Characteristics at Tj=25°C

Part Ordering Number	Color	Viewing Angle°	Luminous Intensity @ 20mA IV (mcd)		
			Min.	Typ.	Max.
SSW-GLM-T2U-1	White	160	355.0	560.0	715.0

NOTE

1. All part number above comes in a quantity of 3000 units per reel.
2. Luminous intensity is measured with an accuracy of ± 11%.
3. Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.
4. Parts are designed for high color rendering in BLU applications; NTSC > 90.

Electrical Characteristics at Ta=25°C

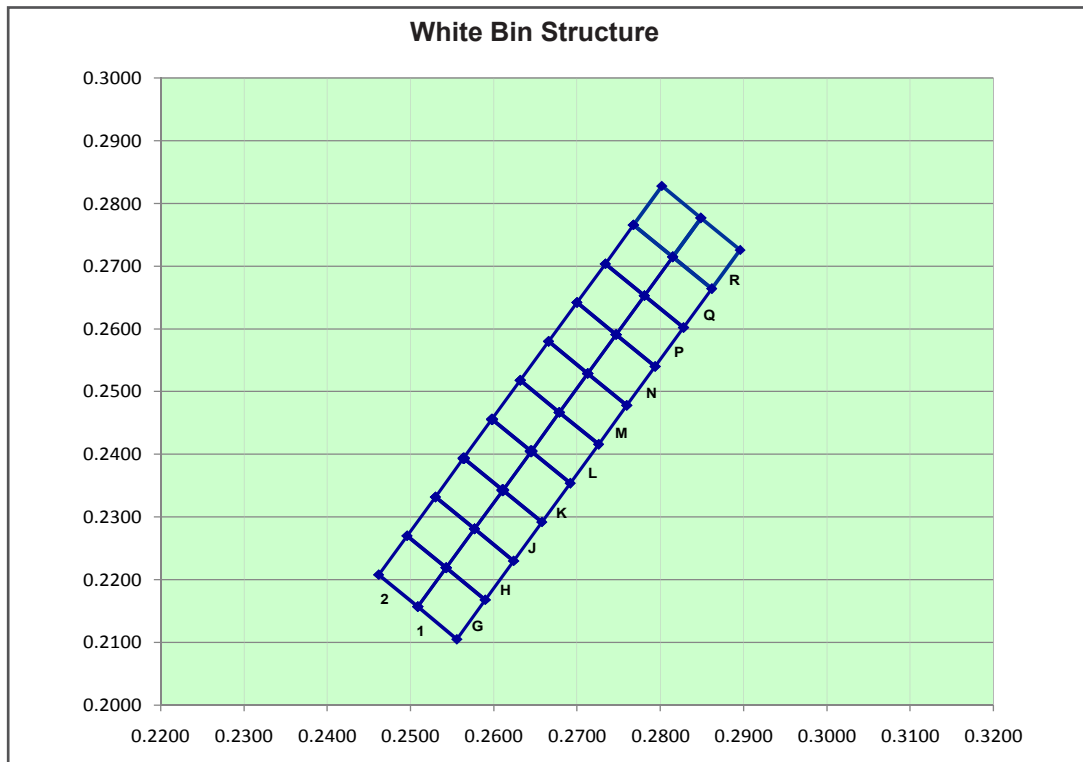
Part Number	Vf @ If = 20mA			Vr @ Ir = 10uA
	Min. (V)	Typ. (V)	Max. (V)	Min. (V)
SSW-GLM	2.9	3.2	3.6	5

Forward voltage, Vf is measured with an accuracy of ± 0.1 V.

Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current	25	mA
Peak pulse current; (tp ≤ 10µs, Duty cycle = 0.1)	100	mA
Reverse voltage; Ir (max) = 10uA	5	V
ESD threshold (HBM)	1000	V
LED junction temperature	110	°C
Operating temperature	-40 ... +100	°C
Storage temperature	-40 ... +100	°C
Power dissipation (at room temperature)	80	mW

White Bin Structure



Chromaticity coordinate groups are measured with an accuracy of ± 0.01.

Bin		1	2	3	4
2G	Cx	0.2462	0.2509	0.2543	0.2496
	Cy	0.2208	0.2157	0.2219	0.2270
1G	Cx	0.2509	0.2556	0.2590	0.2543
	Cy	0.2157	0.2105	0.2168	0.2219
2H	Cx	0.2496	0.2543	0.2577	0.2530
	Cy	0.2270	0.2219	0.2281	0.2332
1H	Cx	0.2543	0.2590	0.2624	0.2577
	Cy	0.2219	0.2168	0.2230	0.2281
2J	Cx	0.2530	0.2577	0.2611	0.2564
	Cy	0.2332	0.2281	0.2343	0.2394
1J	Cx	0.2577	0.2624	0.2658	0.2611
	Cy	0.2281	0.2230	0.2292	0.2343
2K	Cx	0.2564	0.2611	0.2645	0.2598
	Cy	0.2394	0.2343	0.2405	0.2456
1K	Cx	0.2611	0.2658	0.2692	0.2645
	Cy	0.2343	0.2292	0.2354	0.2405
2L	Cx	0.2598	0.2645	0.2679	0.2632
	Cy	0.2456	0.2405	0.2467	0.2518
1L	Cx	0.2645	0.2692	0.2726	0.2679
	Cy	0.2405	0.2354	0.2416	0.2467

Bin		1	2	3	4
2M	Cx	0.2632	0.2679	0.2713	0.2666
	Cy	0.2518	0.2467	0.2529	0.2580
1M	Cx	0.2679	0.2726	0.2760	0.2713
	Cy	0.2467	0.2416	0.2478	0.2529
2N	Cx	0.2666	0.2713	0.2747	0.2700
	Cy	0.2580	0.2529	0.2591	0.2642
1N	Cx	0.2713	0.2760	0.2794	0.2747
	Cy	0.2529	0.2478	0.2540	0.2591
2P	Cx	0.2700	0.2747	0.2781	0.2734
	Cy	0.2642	0.2591	0.2653	0.2704
1P	Cx	0.2747	0.2794	0.2828	0.2781
	Cy	0.2591	0.2540	0.2602	0.2653
2Q	Cx	0.2734	0.2781	0.2815	0.2768
	Cy	0.2704	0.2653	0.2715	0.2766
1Q	Cx	0.2781	0.2828	0.2862	0.2815
	Cy	0.2653	0.2602	0.2664	0.2715
2R	Cx	0.2768	0.2815	0.2849	0.2802
	Cy	0.2766	0.2715	0.2777	0.2828
1R	Cx	0.2815	0.2862	0.2896	0.2849
	Cy	0.2715	0.2664	0.2726	0.2777

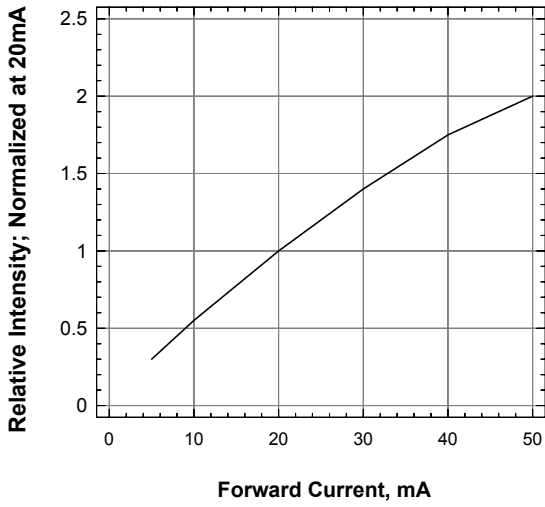
Dominant color coordinate is measured with an accuracy of ± 0.01 .

Luminous Intensity Group at Tj=25°C

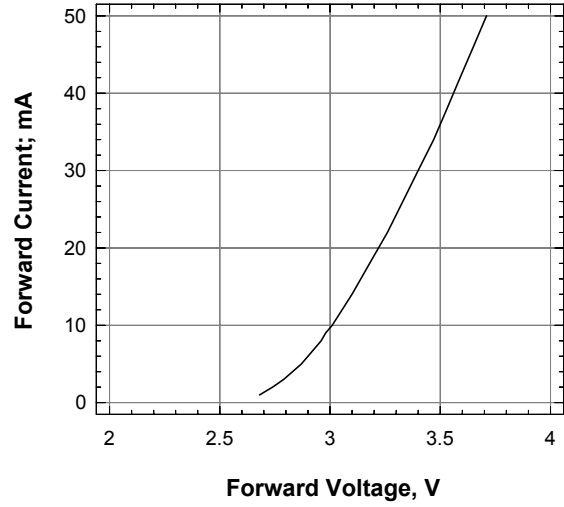
Brightness Group	Luminous Intensity IV (mcd)
T2	355.0 ... 450.0
U1	450.0 ... 560.0
U2	560.0 ... 715.0

Luminous intensity is measured with an accuracy of $\pm 11\%$.

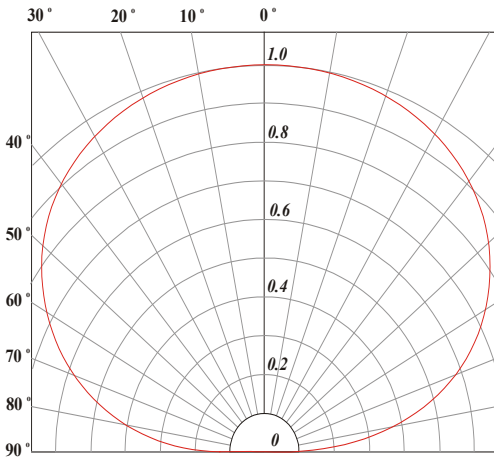
Relative Intensity Vs Forward Current



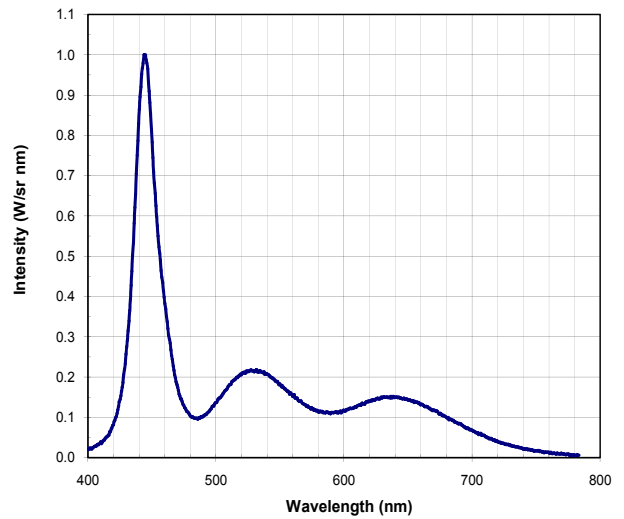
Forward Current Vs Forward Voltage



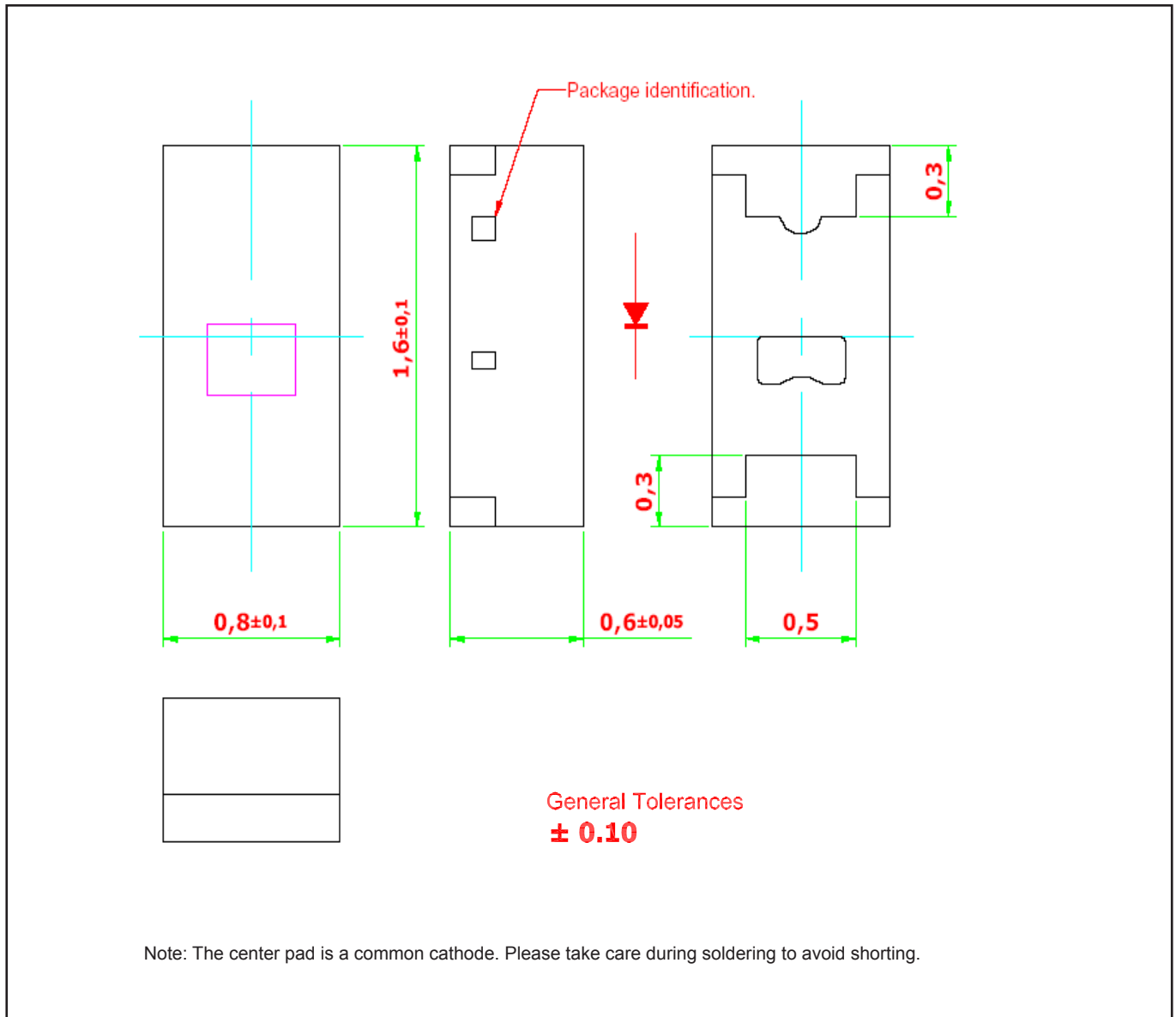
Radiation Pattern



Relative Intensity Vs Wavelength



SpiceLED™ • InGaN S-Spice : SSW-GLM Package Outlines

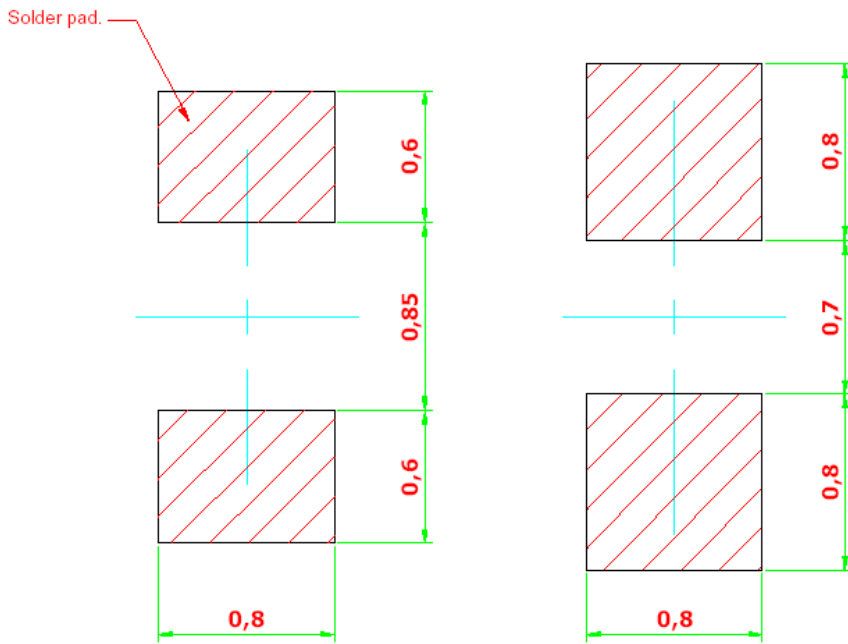


Material

Material	
Lead-frame	Cu Alloy With NiPdAu Plating
Package	High Temperature Resistant Epoxy Resin

Note: product is Pb free

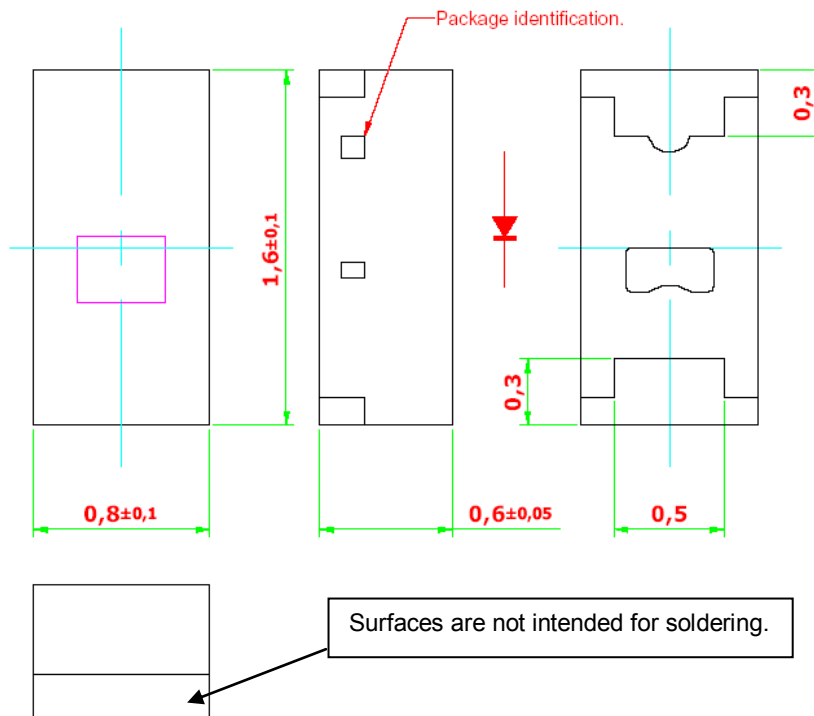
Recommended Solder Pad



Recommended Solder-pad

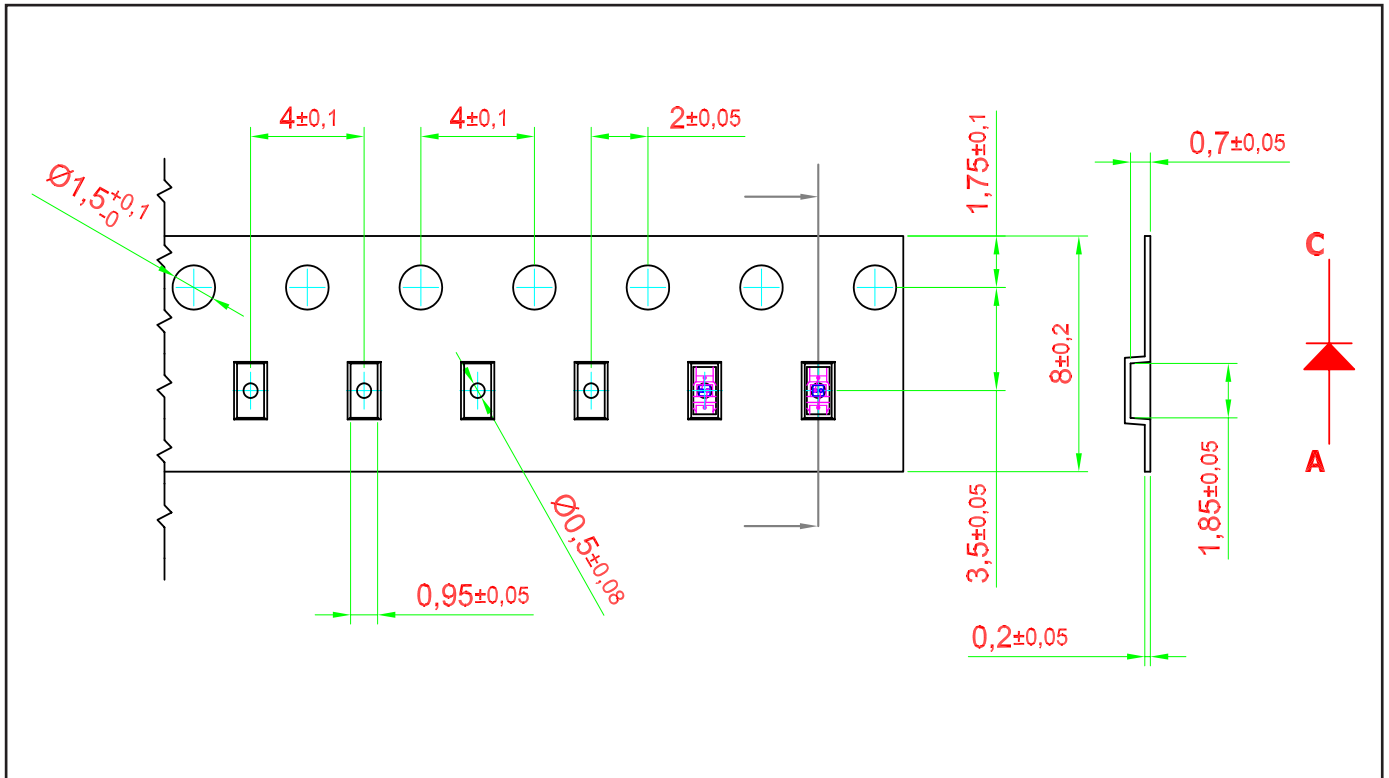
**Alternative Solder-pad
 Compatible to ChipLED 0603**

Note: Component is based on a new package platform, which features “Bottom Only Terminations”. Solder joints are only formed at the bottom of the component and solder fillet will not be observable as the sides of the component.

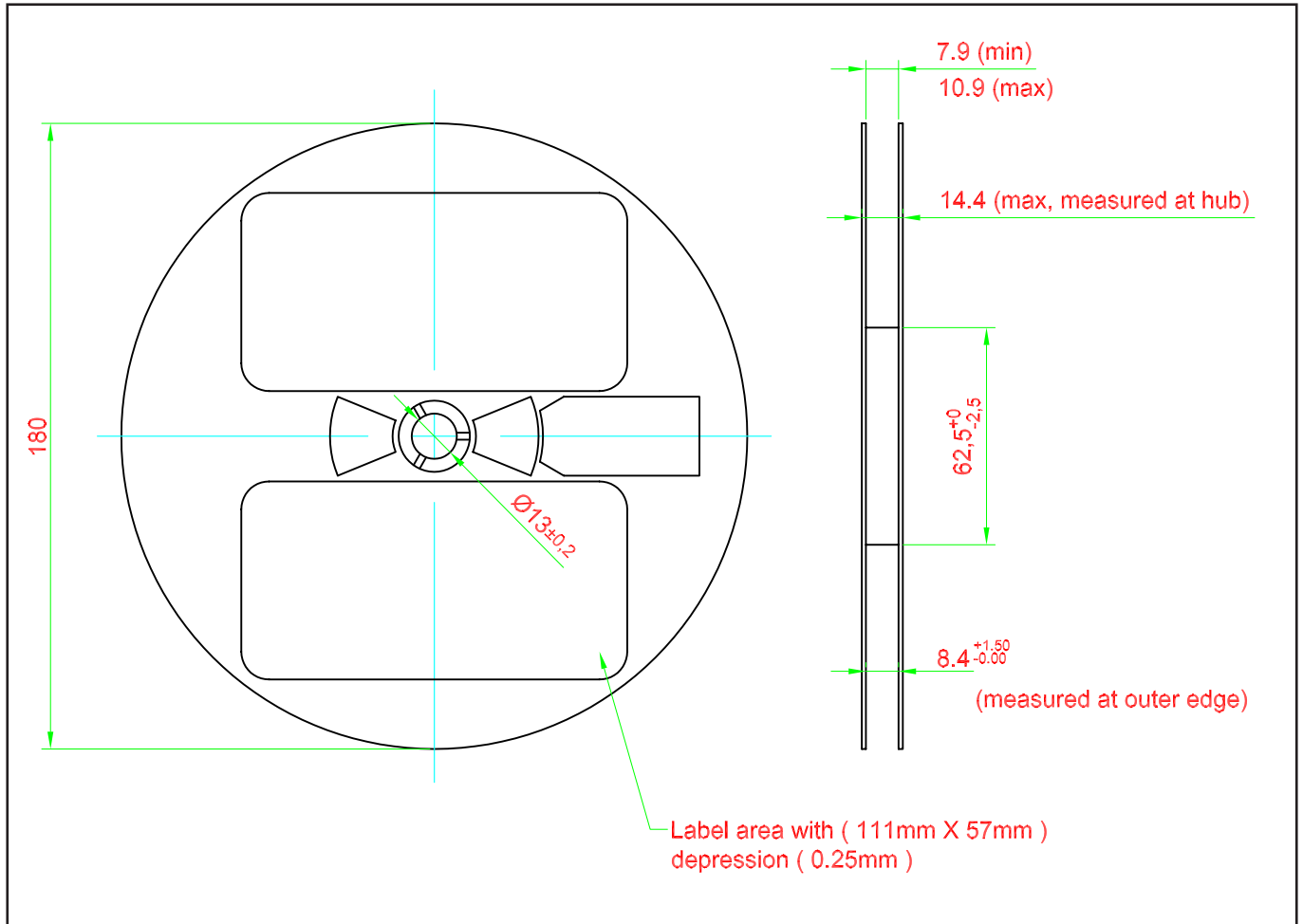


Taping and orientation

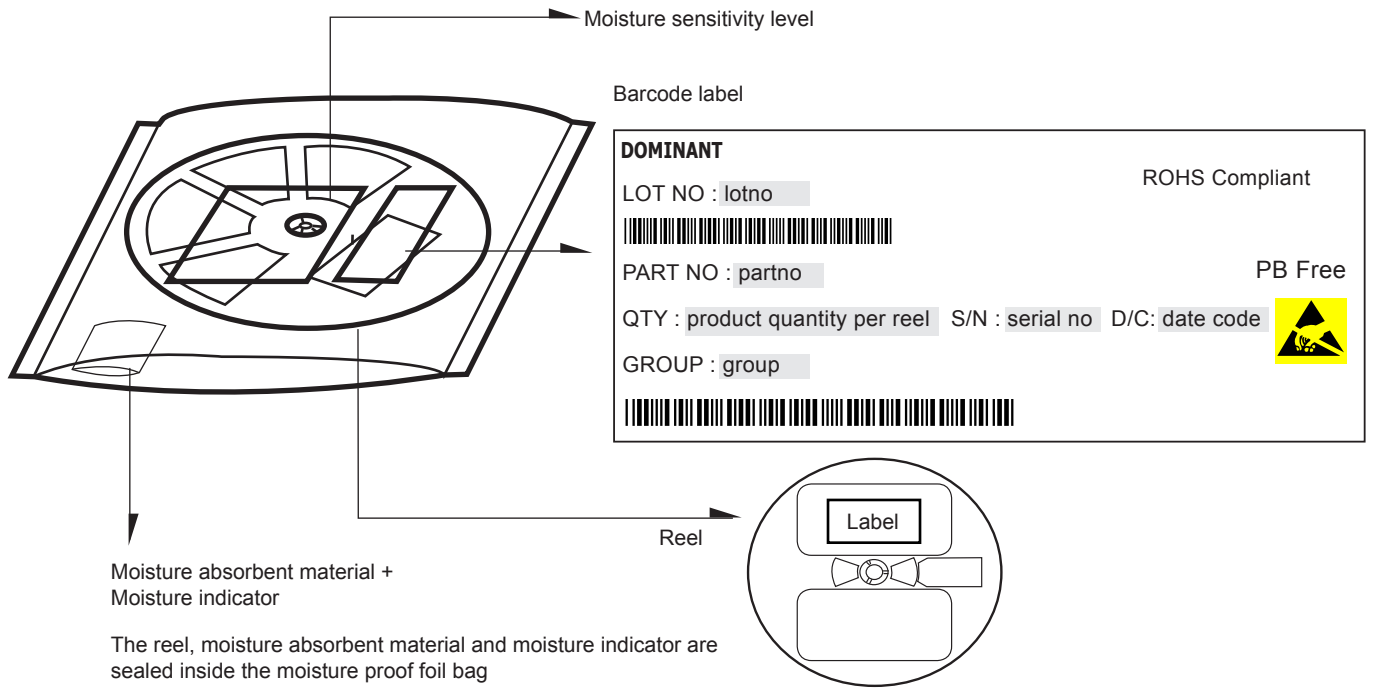
- Reels come in quantity of 3000 units.
- Reel diameter is 180 mm.



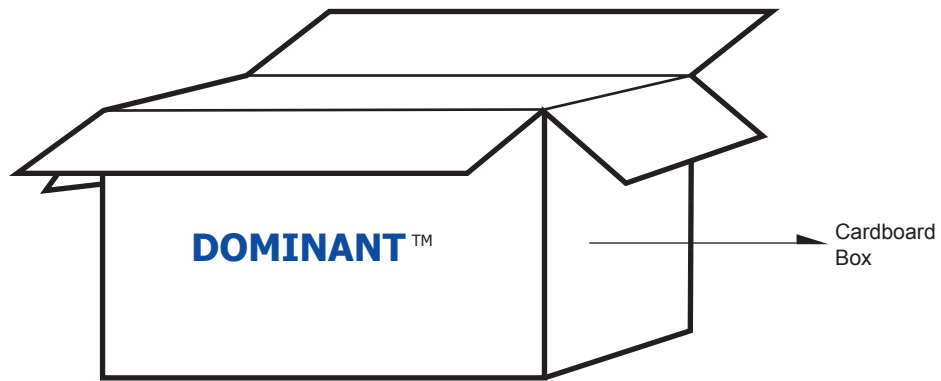
Packaging Specification



Packaging Specification



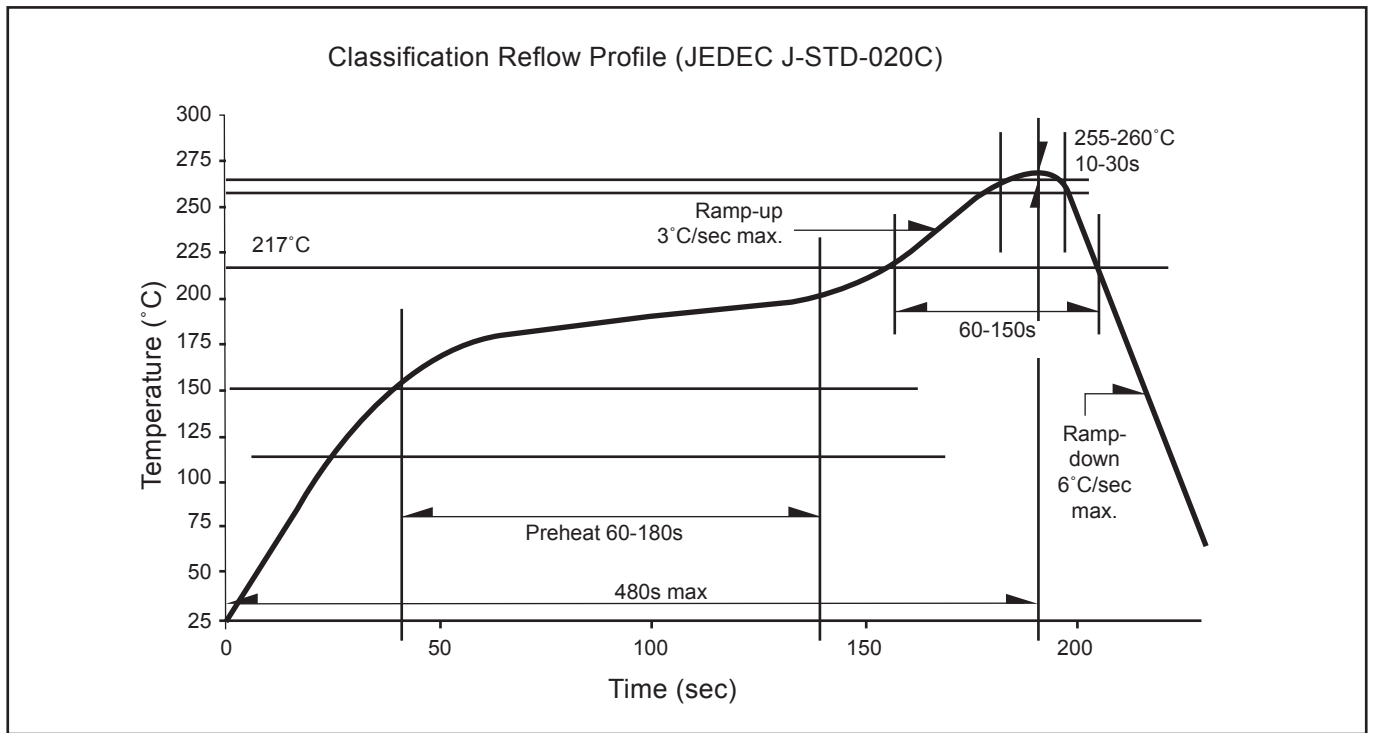
	Average 1pc SpiceLED	1 completed bag (3000pcs)
Weight (gram)	0.001	140 ± 10



For SpiceLED™

Cardboard Box Size	Dimensions (mm)	Empty Box Weight (kg)	Reel / Box	Quantity / Box (pcs)
Small	300 x 250 x 250	0.58	15 reels MAX	45,000 MAX
Large	416 x 516 x 476	1.74	96 reels MAX	288,000 MAX

Recommended Pb-free Soldering Profile



About Us

DOMINANT Opto Technologies is a dynamic Malaysian Corporation that is among the world's leading SMT LED Manufacturers. An excellence – driven organization, it offers a comprehensive product range for diverse industries and applications. Featuring an internationally certified quality assurance acclaim, DOMINANT's extra bright LEDs are perfectly suited for various lighting applications in the automotive, consumer and communications as well as industrial sectors. With extensive industry experience and relentless pursuit of innovation, DOMINANT's state-of-art manufacturing, research and testing capabilities have become a trusted and reliable brand across the globe. More information about DOMINANT Opto Technologies can be found on the Internet at <http://www.dominant-semi.com>.

Please contact us for more information:

Head Quarter

DOMINANT Opto Technologies Sdn. Bhd
Lot 6, Batu Berendam, FTZ Phase III, 75350 Melaka, Malaysia.
Tel: +606 283 3566 Fax: +606 283 0566
E-mail: sales@dominant-semi.com

DOMINANT Opto Technologies (Shanghai) Co., Ltd

Rm 305, Hongwell International Plaza No. 1600 Zhong Shan(W) Rd, Xuhui District, 200235 Shanghai, China
Tel: +86 21 5403 5655, Fax: +86 21 5403 6055
E-mail: sales_china@dominant-semi.com

DOMINANT Korea Sales Office

DOMINANT Semiconductors Korea Inc.
#211, Suntech City, 513-15, Sangdaewon 1-Dong, Jungwon-Gu, Seongnam-Si, Gyeonggi-Do, 462-725 Korea.
Tel: +82-31-701-5203 Fax: +82-31-701-5204
E-mail: sales_korea@dominant-semi.com

DOMINANT Europe Sales Office

DOMINANT Semiconductors Europe GmbH
Raiffeisenstr. 38, 74906 Bad Rappenau Germany
Tel: +49 (0) 7264-89010-0 Fax: +49 (0) 7264-89010-29
E-mail: info@dominant-semi.eu

DOMINANT U.S.A Sales Office

25 Rockaway Road, 08833 Lebanon, New Jersey, USA
Tel: +1(908) 439-9930 Cell: +1(908) 343-5810 Fax: +1(908) 439-9929
E-mail: don.wendel@dominant-semi.com

DOMINANT India Sales Office

C-11, Vesanth Business Centre, #86, TTK Road, Alwarpet Chennai - 600 018, India.
Tel: +91-44-42030616 / 516 Fax: +91-44-4920616 Cell: +91-9444 920 537
E-mail: pravat.behera@dominant-semi.com

