
承认书

Specification for approval

客户名称：

Customer

产品型号：GS-5050W6-3G80-NWN

Product Part No.

制定人：

Issued By

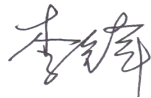


日期：

Date

审核：

Approved By



日期：

Date

客户回签：

Custer Confirmation

日期：

Date

SHENZHEN CUANGMAI ELECTRONICE CO., LTD.

地址 (Add): 深圳市宝安福永福路与重庆路交叉口金港工业园 B 栋 4-5 楼

电话 (Tel): 86-755 -23499599

传真 (Fax): 86-755-23497717

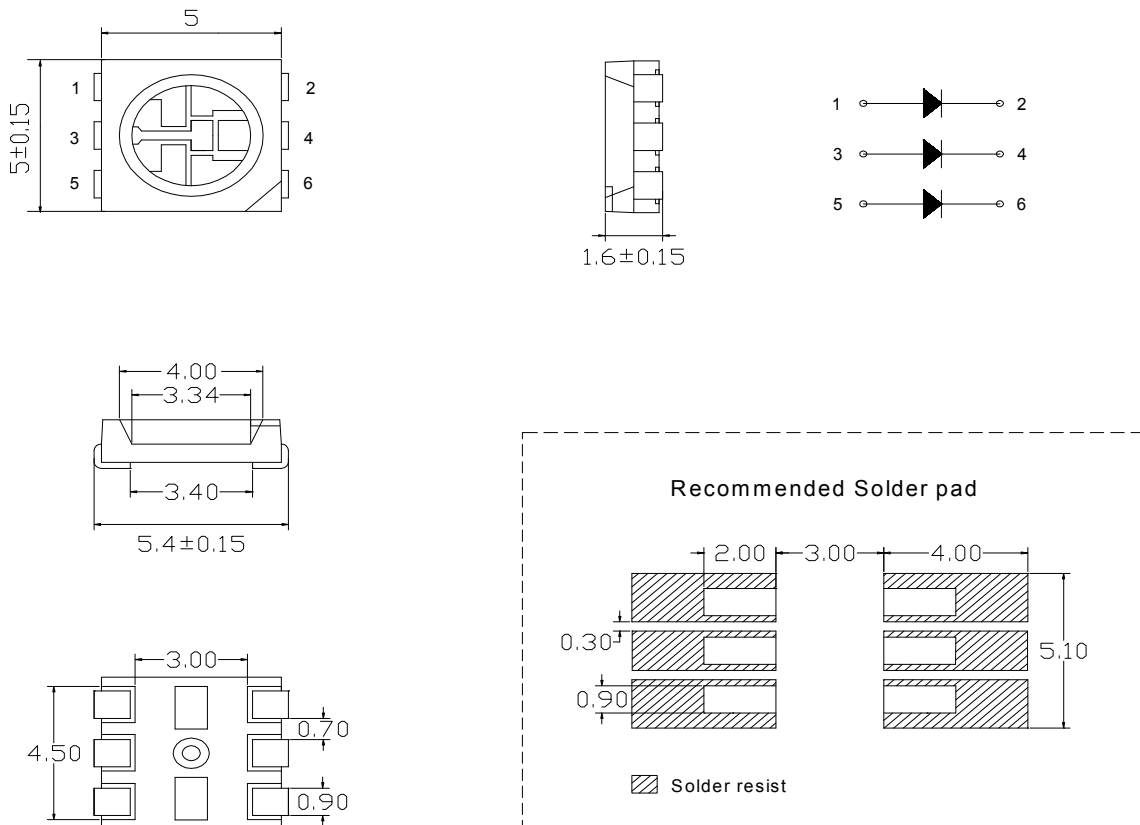
White TOP LED

Lead(Pb) Free Product-ROHS Compliant

■ Applications

1. Interior automotive lighting(dashboard backlight etc...)
2. Optical indicators
3. Communication Products
4. Backlighting
5. Flash
6. Toys

■ Package Dimensions



Notes:

All dimensions in mm tolerance is ±0.1mm unless otherwise noted.

■ Absolute Maximum Ratings (Ta = 25°C)

Items	Symbol	Absolute maximum Rating	Unit
Power Dissipation	P _D	3*100	mW
Forward Current(DC)	I _F	3*25	mA
Peak Forward Current**	I _{FP}	3*100	mA
Operation Temperature	T _{opr}	-40~ +85	°C
Storage Temperature	T _{stg}	-40 ~ +100	°C

**Pulse width ≤ 0.1 msec duty $\leq 1/10$

■ Typical Electrical & Optical Characteristics (Ta = 25°C)

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V _F	I _F = 3*20mA	3.0	---	3.2	V
Reverse Current	I _R	V _R = 5V	---	---	10	μ A
Chromatic Coordinates**	CCT	I _F = 3*20mA	3000	---	6500	K
Luminous Intensity**	I _v	I _F = 3*20mA	8000		8600	mcd
Luminous flux**	Flux	I _F = 60mA	22	--	24	lm
50% Power Angle**	2 θ _{1/2}	I _F = 3*20mA	---	120	---	Deg
Color Rendering Index	Ra	I _F = 3*20mA	70		75	CRI

** Luminous intensity , Luminous flux ,CIE and View angle data are the Values when 3 circuits are lit simultaneously.

■ Ranks Combination (IF = 60mA)

Rank	V2	W1	W2	X1
Luminous Intensity(mcd)	4000-4600	5000-5600	5600-6400	6400-7000

■ Notes

1. Tolerance of measurement of luminous intensity : ±8%
2. Tolerance of measurement of chromatic coordinates : ±0.01
3. Tolerance of measurement of forward voltage : ±0.1V

■ Chromatic Coordinates Ranks

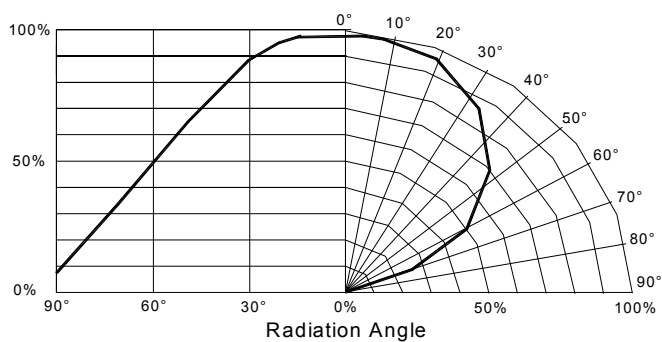
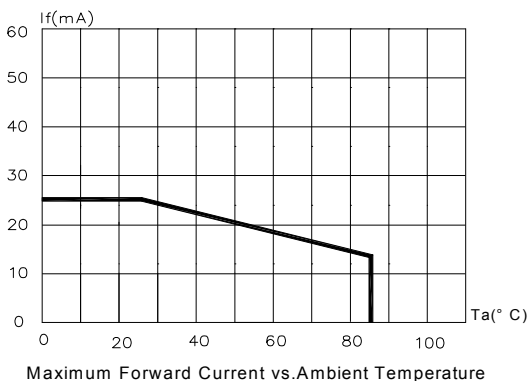
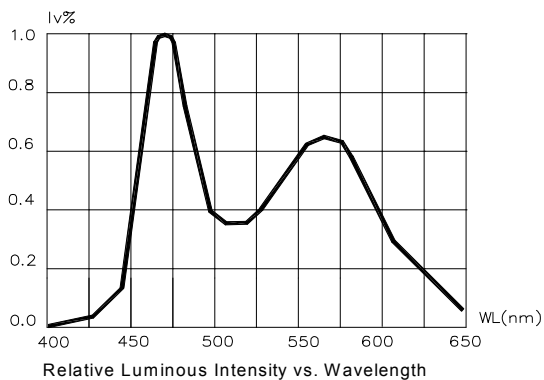
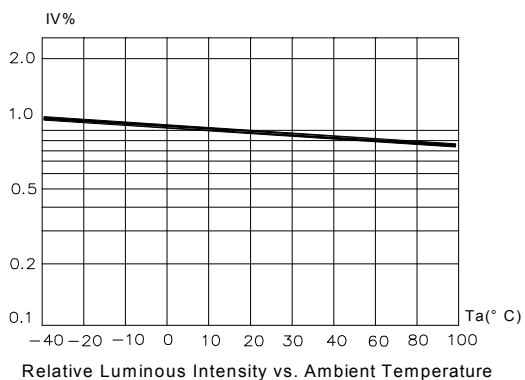
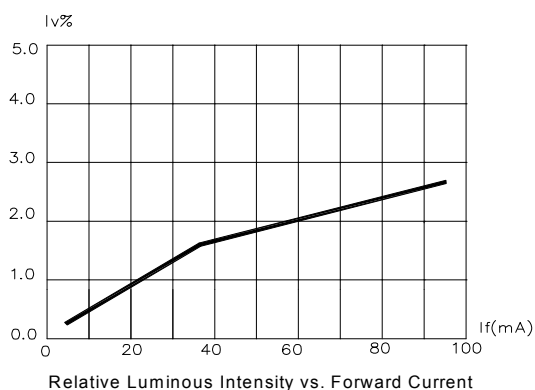
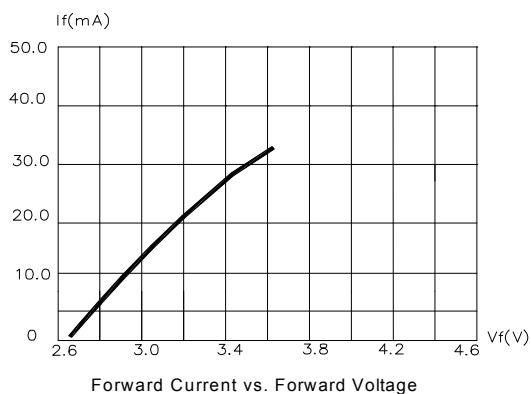
	A11		A12		A13		A14		C11		C12	
X	0.2397	0.2446	0.2446	0.2494	0.2494	0.2542	0.2542	0.2598	0.2780	0.2842	0.2842	0.2900
Y	0.2570	0.2651	0.2651	0.2731	0.2731	0.2813	0.2813	0.2902	0.3158	0.3241	0.3241	0.3316
X	0.2463	0.2545	0.2545	0.2560	0.2560	0.2610	0.2610	0.2666	0.2851	0.2914	0.2914	0.2971
Y	0.2511	0.2623	0.2623	0.2703	0.2703	0.2784	0.2784	0.2873	0.3127	0.3210	0.3210	0.3286
	A21		A22		A23		A24		C22		C23	
X	0.2463	0.2545	0.2545	0.2560	0.2560	0.2610	0.2610	0.2666	0.2851	0.2914	0.2914	0.2971
Y	0.2511	0.2623	0.2623	0.2703	0.2703	0.2784	0.2784	0.2873	0.3172	0.3210	0.3210	0.3286
X	0.2536	0.2583	0.2583	0.2632	0.2632	0.2683	0.2683	0.2738	0.2923	0.2986	0.2986	0.3043
Y	0.2514	0.2592	0.2592	0.2672	0.2672	0.2754	0.2754	0.2842	0.3096	0.3179	0.3179	0.3255
	A31		A32		A33		B31		C32		S31	
X	0.2536	0.2583	0.2583	0.2632	0.2632	0.2683	0.2683	0.2738	0.2923	0.2986	0.2986	0.3043
Y	0.2514	0.2592	0.2592	0.2672	0.2672	0.2754	0.2754	0.2842	0.3096	0.3179	0.3179	0.3255
X	0.2616	0.2664	0.2664	0.2712	0.2712	0.2760	0.2760	0.2814	0.2998	0.3061	0.3061	0.3118
Y	0.2476	0.2557	0.2557	0.2637	0.2637	0.2719	0.2719	0.2809	0.3064	0.3147	0.3147	0.3222
	A41		A42		A43		B41		C43		S41	
X	0.2616	0.2664	0.2664	0.2712	0.2760	0.2760	0.2814	0.2814	0.2998	0.3061	0.3061	0.3118
Y	0.2476	0.2557	0.2557	0.2637	0.2719	0.2719	0.2809	0.2809	0.3064	0.3147	0.3147	0.3222
X	0.2688	0.2736	0.2736	0.2784	0.2832	0.2832	0.2886	0.2886	0.3068	0.3131	0.3131	0.3188
Y	0.2445	0.2526	0.2526	0.2607	0.2688	0.2688	0.2778	0.2778	0.3034	0.3116	0.3116	0.3192
	A51		A52		B51		B52		S51		S52	
X	0.2688	0.2736	0.2736	0.2784	0.2784	0.2832	0.2832	0.2886	0.3068	0.3131	0.3131	0.3188
Y	0.2445	0.2526	0.2526	0.2607	0.2607	0.2688	0.2688	0.2778	0.3034	0.3116	0.3116	0.3192
X	0.2761	0.2809	0.2809	0.2857	0.2857	0.2905	0.2905	0.2959	0.3139	0.3205	0.3205	0.3263
Y	0.2414	0.2495	0.2495	0.2575	0.2575	0.2657	0.2657	0.2747	0.3000	0.3084	0.3084	0.3160
	C13		S11		S12		S13		S21		S22	
X	0.2900	0.2958	0.2958	0.3013	0.3013	0.3066	0.3066	0.3119	0.2971	0.3032	0.3032	0.3082
Y	0.3316	0.3393	0.3393	0.3461	0.3461	0.3526	0.3526	0.3591	0.3286	0.3365	0.3365	0.3431
X	0.2971	0.3032	0.3032	0.3082	0.3082	0.3135	0.3135	0.3188	0.3043	0.3103	0.3103	0.3157
Y	0.3286	0.3365	0.3365	0.3431	0.3431	0.3496	0.3496	0.3561	0.3255	0.3333	0.3333	0.3399

	S23		S24		S32		S33		S34		T41	
X	0.3082	0.3135	0.3135	0.3188	0.3043	0.3103	0.3103	0.3157	0.3157	0.3210	0.3210	0.3263
Y	0.3431	0.3496	0.3496	0.3561	0.3255	0.3333	0.3333	0.3399	0.3399	0.3464	0.3464	0.3529
X	0.3157	0.3210	0.3210	0.3263	0.3118	0.3177	0.3177	0.3233	0.3233	0.3287	0.3287	0.3339
Y	0.3399	0.3464	0.3464	0.3529	0.3222	0.3301	0.3301	0.3366	0.3366	0.3431	0.3431	0.3496
	S42		S43		T51		T52		T61		T62	
X	0.3118	0.3122	0.3177	0.3233	0.3233	0.3287	0.3287	0.3339	0.3188	0.3247	0.3247	0.3302
Y	0.3222	0.3301	0.3301	0.3366	0.3366	0.3431	0.3431	0.3496	0.3192	0.3268	0.3268	0.3336
X	0.3188	0.3247	0.3247	0.3302	0.3302	0.3355	0.3355	0.3408	0.3263	0.3321	0.3321	0.3374
Y	0.3192	0.3268	0.3268	0.3336	0.3336	0.3402	0.3402	0.3467	0.3160	0.3238	0.3238	0.3305
	T63		T64		T11		T12		T13			
X	0.3302	0.3355	0.3355	0.3408	0.3327	0.3414	0.3414	0.3498	0.3498	0.3562		
Y	0.3336	0.3402	0.3402	0.3467	0.3890	0.3975	0.3975	0.4054	0.4054	0.4118		
X	0.3374	0.3427	0.3427	0.3482	0.3388	0.3475	0.3475	0.3558	0.3558	0.3623		
Y	0.3305	0.3371	0.3371	0.3435	0.3864	0.3948	0.3948	0.4028	0.4028	0.4091		

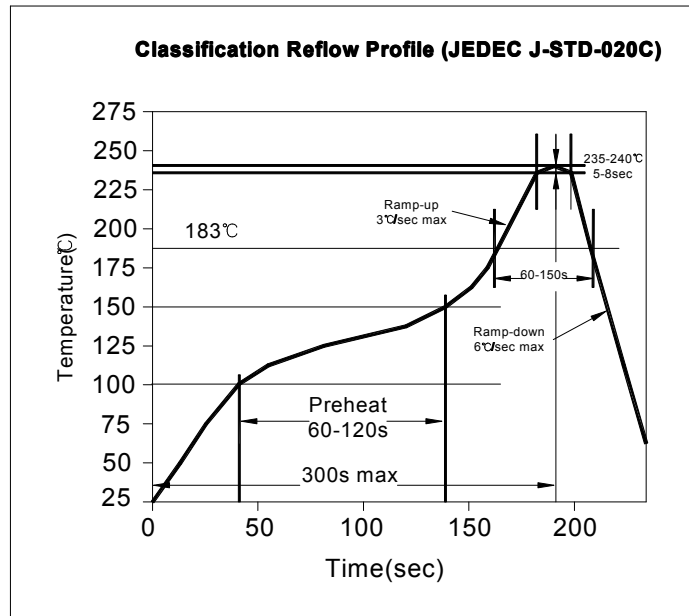
	S11		S12		S13		S14		T21		T22	
X	0.2958	0.3013	0.3013	0.3066	0.3066	0.3119	0.3119	0.3164	0.3164	0.3234	0.3234	0.3312
Y	0.3393	0.3461	0.3461	0.3526	0.3526	0.3591	0.3591	0.3647	0.3647	0.3712	0.3712	0.3788
X	0.3032	0.3082	0.3082	0.3135	0.3135	0.3188	0.3188	0.3233	0.3233	0.3302	0.3302	0.3380
Y	0.3365	0.3431	0.3431	0.3496	0.3496	0.3561	0.3561	0.3617	0.3617	0.3683	0.3683	0.3759
	S22		S23		S24		T31		T32		T33	
X	0.3032	0.3082	0.3082	0.3135	0.3135	0.3188	0.3188	0.3233	0.3233	0.3302	0.3302	0.3380
Y	0.3365	0.3431	0.3431	0.3496	0.3496	0.3561	0.3561	0.3617	0.3617	0.3683	0.3683	0.3759
X	0.3103	0.3157	0.3157	0.3210	0.3210	0.3263	0.3263	0.3308	0.3308	0.3376	0.3376	0.3454
Y	0.3333	0.3399	0.3399	0.3464	0.3464	0.3529	0.3529	0.3585	0.3585	0.3651	0.3651	0.3727
	S33		S34		T41		T42		T43		T44	
X	0.3103	0.3157	0.3157	0.3210	0.3210	0.3263	0.3263	0.3308	0.3308	0.3376	0.3376	0.3454
Y	0.3333	0.3399	0.3399	0.3464	0.3464	0.3529	0.3529	0.3585	0.3585	0.3651	0.3651	0.3727
X	0.3177	0.3233	0.3233	0.3287	0.3287	0.3339	0.3339	0.3384	0.3384	0.3453	0.3453	0.3531
Y	0.3301	0.3366	0.3366	0.3431	0.3431	0.3496	0.3496	0.3552	0.3552	0.3618	0.3618	0.3694

	S43		T51		T52		T53		T54		T23	
X	0.3177	0.3233	0.3233	0.3287	0.3287	0.3339	0.3339	0.3384	0.3384	0.3453	0.3312	0.3388
Y	0.3301	0.3366	0.3366	0.3431	0.3431	0.3496	0.3496	0.3552	0.3552	0.3618	0.3788	0.3864
X	0.3247	0.3302	0.3302	0.3355	0.3355	0.3408	0.3408	0.3453	0.3453	0.3522	0.3380	0.3458
Y	0.3268	0.3336	0.3336	0.3402	0.3402	0.3467	0.3467	0.3522	0.3522	0.3589	0.3759	0.3834
	T62		T63		T64		T65		T24		T25	
X	0.3247	0.3302	0.3302	0.3355	0.3355	0.3408	0.3408	0.3453	0.3388	0.3475	0.3475	0.3558
Y	0.3268	0.3336	0.3336	0.3402	0.3402	0.3467	0.3467	0.3522	0.3864	0.3948	0.3948	0.4028
X	0.3321	0.3374	0.3374	0.3427	0.3427	0.3482	0.3482	0.3528	0.3458	0.3545	0.3545	0.3627
Y	0.3238	0.3305	0.3305	0.3371	0.3371	0.3435	0.3435	0.3490	0.3834	0.3918	0.3918	0.3998
	T11		T12		T13		T26		T34		T35	
X	0.3327	0.3414	0.3414	0.3498	0.3498	0.3562	0.3558	0.3623	0.3380	0.3458	0.3458	0.3545
Y	0.3890	0.3975	0.3975	0.4054	0.4054	0.4118	0.4028	0.4091	0.3759	0.3834	0.3834	0.3918
X	0.3388	0.3475	0.3475	0.3558	0.3558	0.3623	0.3627	0.3693	0.3454	0.3532	0.3532	0.3619
Y	0.3864	0.3948	0.3948	0.4028	0.4028	0.4091	0.3998	0.4061	0.3727	0.3802	0.3802	0.3886
	T45		T46									
X	0.3454	0.3532	0.3532	0.3619								
Y	0.3727	0.3802	0.3802	0.3886								
X	0.3531	0.3609	0.3609	0.3696								
Y	0.3694	0.3769	0.3769	0.3853								

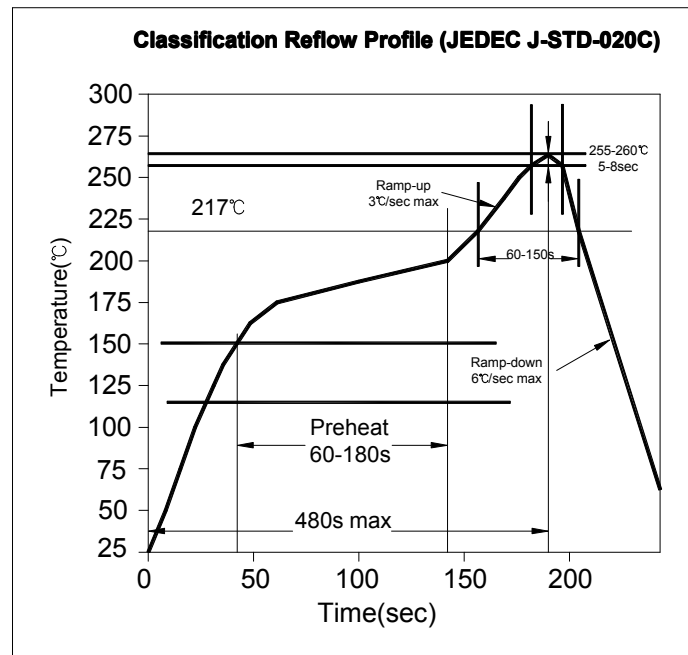
■ Typical Electrical/ Optical Characteristics Curves (Ta=25°C Unless Otherwise Noted) (per die)



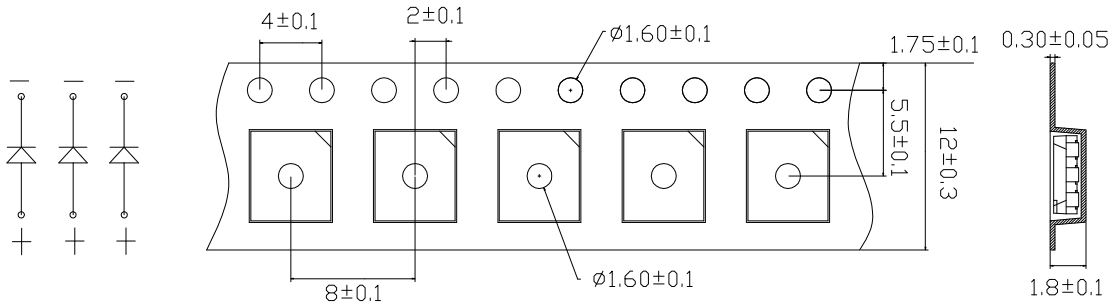
■ Soldering heat reliability:
Lead Solder



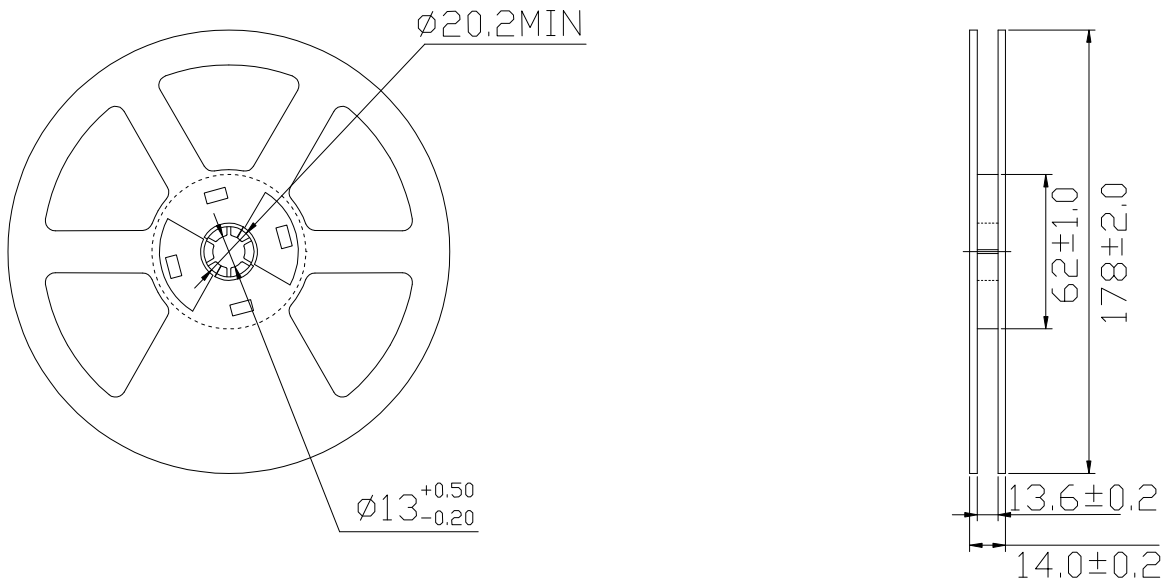
Lead Free Solder



■ Packing Specifications:



■ Reel Specifications



Dimensions are specified as follows: mm

Notes:

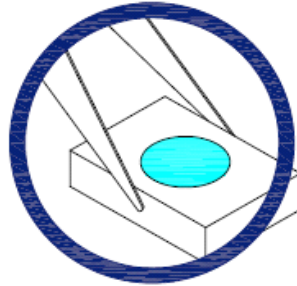
- 1) The packing only appropriate for GMDZ
- 2) Normal packing quantity: 1,000pcs/reel

■ **Handling Precautions**

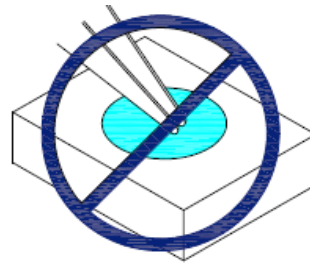
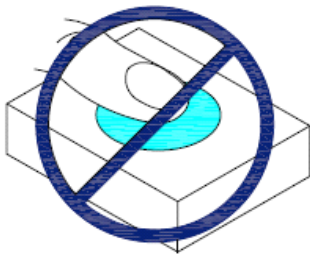
Compare to epoxy encapsulant that is hard and brittle, silicone is softer and flexible. Although its characteristic significantly reduces thermal stress, it is more susceptible to damage by external mechanical force.

As a result, special handling precautions need to be observed during assembly using silicone encapsulated LED products. Failure to comply might leads to damage and premature failure of the LED.

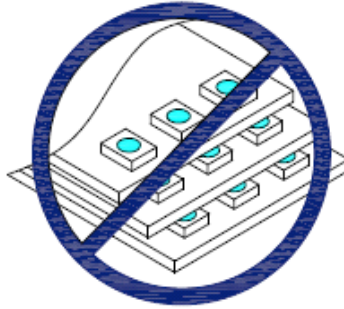
1. Handle the component along the side surfaces by using forceps or appropriate tools.



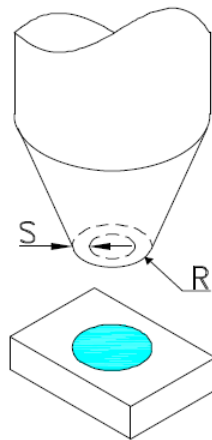
2. Do not directly touch or handle the silicone lens surface. It may damage the internal circuitry.



3. Do not stack together assembled PCBs containing exposed LEDs. Outside impact may scratch the silicone lens or damage the internal circuitry.



4. The outer diameter of the TOP LED pickup nozzle should not exceed the size of the LED to prevent air leaks. The inner diameter of the nozzle should be as large as possible.
5. A pliable material is suggested for the nozzle tip to avoid scratching or damaging the LED surface during pickup.
6. The dimensions of the component must be accurately programmed in the pick-and-place machine to insure precise pickup and avoid damage during production.



7. Wet products have to be re-baked 24 hours at the temperature of $65\pm 5^{\circ}\text{C}$ in use.

Revision History					
Rev.No.	Change Description	Date	Prepared By	Checked By	Approved By
01	New-made specification	2010/3/20	HDW	LF	LF
02	New-made specification	2012/8/21	HZHY	LF	LF

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