

SMD ▪ Low Power LED XI2323 Series



Features

- Top view white LED
- High luminous intensity output
- Typical Viewing Angle:120°
- Pb-free
- RoHS compliant

Description

The Everlight XI2323 package has high efficacy, high CRI, mid power consumption, wide viewing angle and a compact form factor. These features make this package an ideal LED for all lighting applications.

Applications

- General lighting
- Decorative and Entertainment Lighting
- Indicators
- Illumination

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Product Nomenclature

The product name is designated as below:

XI2323/ XK 3 C - X XX XX XX XX XX Z6/ 2T

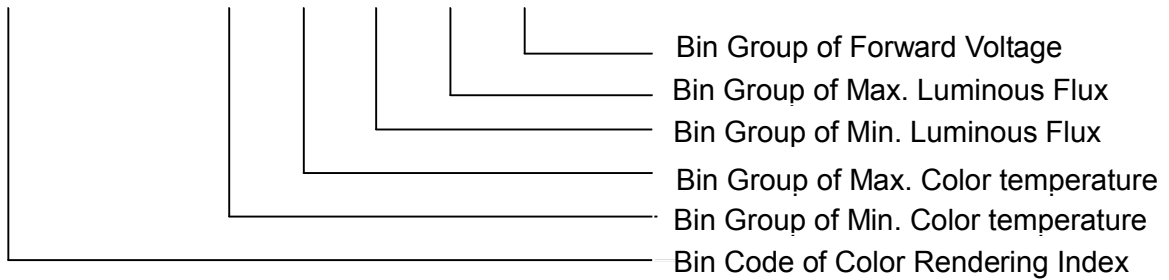


Table of Color Rendering Index

Symbol	Description
M	CRI(Min.) : 60
N	CRI(Min.) : 65
L	CRI(Min.) : 70
Q	CRI(Min.) : 75
K	CRI(Min.) : 80
P	CRI(Min.) : 85
H	CRI(Min.) : 90

Note:

Tolerance of Color Rendering Index: ±2

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Absolute Maximum Ratings

Parameter	Symbol	Ratings	Unit
Max. DC Forward Current (mA)	IF	150	mA
Max. Peak Pulse Current (mA)	IPulse	210 [1]	mA
Power Dissipation	Pd	0.2	W
Thermal Resistance	R _{th}	20	°C/W
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Junction temperature	Tj	115	°C
Max. Soldering Temperature	T _{Sol}	260	°C

Note:

1.Duty cycle = 1/10@1KHZ

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PN of the XI2323 series: Warm White LEDs



Order Code of XI2323	Min. Luminous Flux (lm)	Typ. Luminous Flux (lm)	CCT (K) Wavelength (nm)	Forward Voltage (V)	Forward Current (mA)	CRI (Min.)
XI2323/KK3C-H2727M3N4B63Z6/2T	19	---	2580-2870K	2.6~3.3	65	80
XI2323/KK3C-H3030M3P3B63Z6/2T	20	---	2870-3220K	2.6~3.3	65	80
XI2323/KK3C-H3535M3P3B63Z6/2T	20	---	3220-3710K	2.6~3.3	65	80

Notes:

1. Luminous flux measurement tolerance: $\pm 10\%$.
2. The data of luminous flux measured at thermal pad=25°C
3. Typical luminous flux or light output performance is operated within the condition guided by this datasheet
4. The CRI value is based on the Everlight testing instrument.
5. CRI measurement tolerance: ± 2 .

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PN of the XI2323 series: Neutral White LEDs



Order Code of XI 2323	Min. Luminous Flux (lm)	Typ. Luminous Flux (lm)	CCT (K) Wavelength (nm)	Forward Voltage (V)	Forward Current (mA)	CRI (Min.)
XI2323/KK3C-H4040M3P3B63Z6/2T	20	---	3710-4260K	2.6~3.3	65	80
XI2323/KK3C-H4545M3P3B63Z6/2T	20	---	4260-4745K	2.6~3.3	65	80

Notes:

1. Luminous flux measurement tolerance: $\pm 10\%$.
2. The data of luminous flux measured at thermal pad=25°C
3. Typical luminous flux or light output performance is operated within the condition guided by this datasheet
4. The CRI value is based on the Everlight testing instrument.
5. CRI measurement tolerance: ± 2 .

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PN of the XI2323 series: Cool White LEDs



Order Code of XI 2323	Min. Luminous Flux (lm)	Typ. Luminous Flux (lm)	CCT (K) Wavelength (nm)	Forward Voltage (V)	Forward Current (mA)	CRI (Min.)
XI2323/KK3C-H5050M4P3B63Z6/2T	21	---	4745-5310K	2.6~3.3	65	80
XI2323/KK3C-H5757M4P3B63Z6/2T	21	---	5310-6020K	2.6~3.3	65	80
XI2323/KK3C-H6565M4P3B63Z6/2T	21	---	6020-7050K	2.6~3.3	65	80

Notes:

1. Luminous flux measurement tolerance: $\pm 10\%$.
2. The data of luminous flux measured at thermal pad=25°C
3. Typical luminous flux or light output performance is operated within the condition guided by this datasheet
4. The CRI value is based on the Everlight testing instrument.
5. CRI measurement tolerance: ± 2 .

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Reference Optic-Electrical Characteristic: Warm White LEDs

Order Code of XI2323	Typ. Luminous Flux (lm)	CCT (K) Wavelength (nm)	Forward Voltage (V)	Forward Current (mA)	CRI (Min.)
XI2323/KK3C-H2727M3N4B63Z6/2T	21	2580-2870K	2.6~3.3	65	80
	31			100	
	36			120	
	44			150	
XI2323/KK3C-H3030M3P3B63Z6/2T	22	2870-3220K	2.6~3.3	65	80
	32			100	
	38			120	
	47			150	
XI2323/KK3C-H3535M3P3B63Z6/2T	22	3220-3710K	2.6~3.3	65	80
	32			100	
	38			120	
	47			150	

Notes:

- All value are measured at IF=65 mA/100 mA /120mA /150 mA and reference only..

Reference Optic-Electrical Characteristic: Neutral White LEDs

Order Code of XI2323	Typ. Luminous Flux (lm)	CCT (K) Wavelength (nm)	Forward Voltage (V)	Forward Current (mA)	CRI (Min.)
XI2323/KK3C-H4040M3P3B63Z6/2T	22	3710-4260K	2.6~3.3	65	80
	32			100	
	38			120	
	47			150	
XI2323/KK3C-H4545M3P3B63Z6/2T	22	4260-4745K	2.6~3.3	65	80
	32			100	
	38			120	
	47			150	

Notes:

1. All value are measured at IF=65 mA/100 mA /120mA /150 mA and reference only..

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Reference Optic-Electrical Characteristic: Cool White LEDs

Order Code of XI2323	Typ. Luminous Flux (lm)	CCT (K) Wavelength (nm)	Forward Voltage (V)	Forward Current (mA)	CRI (Min.)
XI2323/KK3C-H5050M4P3B63Z6/2T	24	4745-5310K	2.6~3.3	65	80
	35			100	
	42			120	
	51			150	
XI2323/KK3C-H5757M4P3B63Z6/2T	24	5310-6020K	2.6~3.3	65	80
	35			100	
	42			120	
	51			150	
XI2323/KK3C-H6565M4P3B63Z6/2T	24	6020-7050K	2.6~3.3	65	80
	35			100	
	42			120	
	51			150	

Notes:

- All value are measured at IF=65 mA/100 mA /120mA /150 mA and reference only..

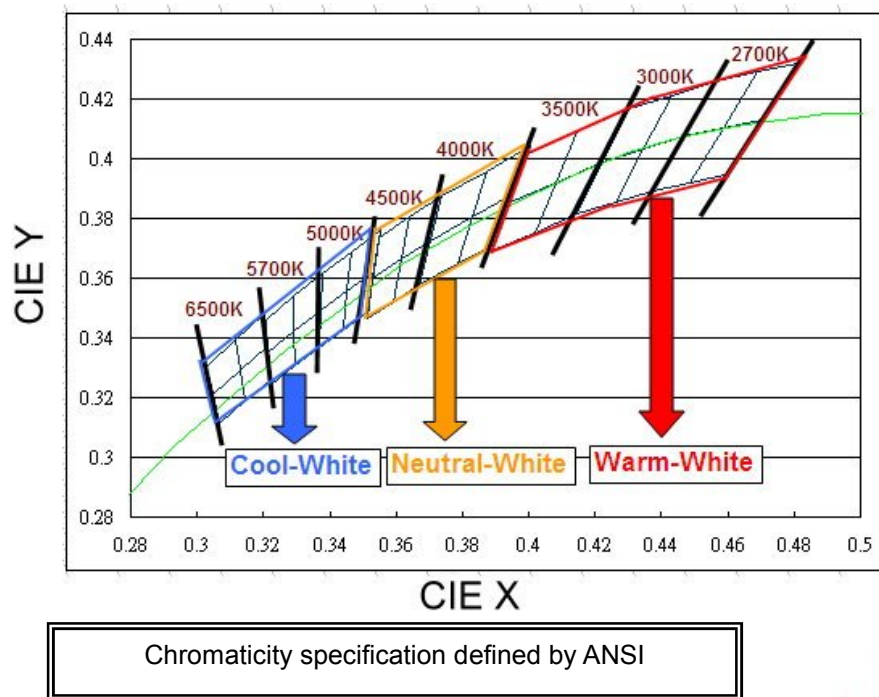
Product Binning Luminous Flux Bins

Group	Bin	Minimum Photometric Flux (lm)	Maximum Photometric Flux (lm)
B	1	5.5	6.0
	2	6.0	6.5
	3	6.5	7.0
	4	7.0	7.5
	5	7.5	8.0
	6	8.0	8.5
	7	8.5	9.0
	8	9.0	9.5
	9	9.5	10.0
L	1	10.0	11.0
	2	11.0	12.0
	3	12.0	13.0
	4	13.0	14.0
	5	14.0	15.0
	6	15.0	16.0
	7	16.0	17.0
	8	17.0	18.0
	9	18.0	19.0

Group	Bin	Minimum Photometric Flux (lm)	Maximum Photometric Flux (lm)
M	3	1	19.0
		2	20.0
	4	21.0	
N	3	24.0	
	4	27.0	
P	3	33.0	
	4	39.0	
Q	3	45.0	

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White Bin Structure

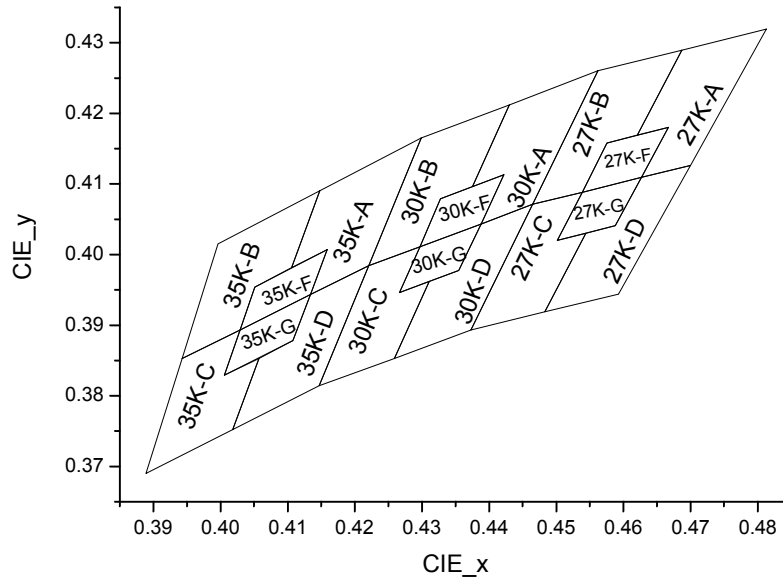


Notes:

1. The CCT range of Cool-White varies from 4745K to 7050K.
2. The CCT range of Neutral-White varies from 3710K to 4745K.
3. The CCT range of Warm-White varies from 2580K to 3710K
4. Color coordinates measurement allowance : ± 0.01
5. Color bins are defined at $I_f=65\text{mA}$ operation

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Warm-White Bin Structure



Warm-White Bin Coordinates

2700K

Bin	CIE X	CIE Y
27K-A	0.4813	0.4319
	0.4687	0.4289
	0.4621	0.4169
	0.4667	0.4180
	0.4627	0.4109
	0.4700	0.4126
Reference Range: 2580~2700K		

Bin	CIE X	CIE Y
27K-B	0.4687	0.4289
	0.4562	0.4260
	0.4465	0.4071
	0.4539	0.4088
	0.4576	0.4158
	0.4621	0.4169
Reference Range: 2700~2870K		

Bin	CIE X	CIE Y
27K-C	0.4465	0.4071
	0.4373	0.3893
	0.4483	0.3919
	0.4544	0.4030
	0.4502	0.4020
	0.4539	0.4088
Reference Range: 2700~2870K		

Bin	CIE X	CIE Y
27K-D	0.4700	0.4126
	0.4627	0.4109
	0.4588	0.4041
	0.4544	0.4030
	0.4483	0.3919
	0.4593	0.3944
Reference Range: 2580~2700K		

Bin	CIE X	CIE Y
27K-F	0.4667	0.4180
	0.4576	0.4158
	0.4539	0.4088
	0.4627	0.4109
Reference Range: 2680~2790K		

Bin	CIE X	CIE Y
27K-G	0.4627	0.4109
	0.4539	0.4088
	0.4502	0.4020
	0.4588	0.4041
Reference Range: 2680~2790K		

3000K

Bin	CIE X	CIE Y
30K-A	0.4562	0.4260
	0.4430	0.4212
	0.4375	0.4096
	0.4422	0.4113
	0.4388	0.4043
	0.4465	0.4071
Reference Range: 2870~3000K		

Bin	CIE X	CIE Y
30K-B	0.4430	0.4212
	0.4299	0.4165
	0.4221	0.3984
	0.4297	0.4011
	0.4328	0.4079
	0.4375	0.4096
Reference Range: 3000~3220K		

Bin	CIE X	CIE Y
30K-C	0.4221	0.3984
	0.4147	0.3814
	0.4259	0.3853
	0.4311	0.3962
	0.4267	0.3946
	0.4297	0.4011
Reference Range: 3000~3220K		

Bin	CIE X	CIE Y
30K-D	0.4465	0.4071
	0.4388	0.4043
	0.4355	0.3977
	0.4311	0.3962
	0.4259	0.3853
	0.4373	0.3893
Reference Range: 2870~3000K		

Bin	CIE X	CIE Y
30K-F	0.4422	0.4113
	0.4328	0.4079
	0.4297	0.4011
	0.4388	0.4043
Reference Range: 2960~3150K		

Bin	CIE X	CIE Y
30K-G	0.4388	0.4043
	0.4297	0.4011
	0.4267	0.3946
	0.4355	0.3977
Reference Range: 2960~3150K		

3500K

Bin	CIE X	CIE Y
35K-A	0.4299	0.4165
	0.4148	0.4090
	0.4106	0.3981
	0.4159	0.4007
	0.4134	0.3943
	0.4221	0.3984
Reference Range: 3220~3500K		

Bin	CIE X	CIE Y
35K-B	0.4148	0.4090
	0.3996	0.4015
	0.3943	0.3853
	0.4029	0.3893
	0.4051	0.3954
	0.4106	0.3981
Reference Range: 3500~3710K		

Bin	CIE X	CIE Y
35K-C	0.3943	0.3853
	0.3889	0.3690
	0.4018	0.3752
	0.4057	0.3853
	0.4006	0.3829
	0.4029	0.3893
Reference Range: 3500~3710K		

Bin	CIE X	CIE Y
35K-D	0.4221	0.3984
	0.4134	0.3943
	0.4108	0.3878
	0.4057	0.3853
	0.4018	0.3752
	0.4147	0.3814
Reference Range: 3220~3500K		

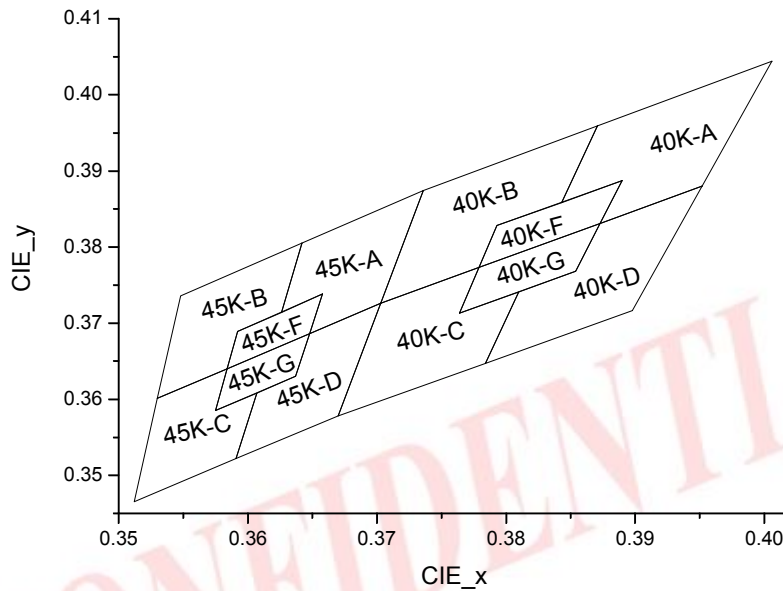
Bin	CIE X	CIE Y
35K-F	0.4159	0.4007
	0.4051	0.3954
	0.4029	0.3893
	0.4134	0.3943
Reference Range: 3370~3560K		

Bin	CIE X	CIE Y
35K-G	0.4134	0.3943
	0.4029	0.3893
	0.4006	0.3829
	0.4108	0.3878
Reference Range: 3370~3560K		

Note:

1. Color coordinates measurement allowance : ± 0.01 .

Neutral-White Bin Structure



Neutral-White Bin Coordinates

4000K

Bin	CIE X	CIE Y
40K-A	0.4006	0.4044
	0.3871	0.3959
	0.3843	0.3858
	0.3890	0.3887
	0.3873	0.3831
	0.3952	0.3880
Reference Range: 3710~4000K		

Bin	CIE X	CIE Y
40K-B	0.3871	0.3959
	0.3736	0.3874
	0.3703	0.3726
	0.3779	0.3773
	0.3793	0.3828
	0.3843	0.3858
Reference Range: 4000~4260K		

Bin	CIE X	CIE Y
40K-C	0.3703	0.3726
	0.3670	0.3578
	0.3784	0.3647
	0.3810	0.3741
	0.3764	0.3713
	0.3779	0.3773
Reference Range: 4000~4260K		

Bin	CIE X	CIE Y
40K-D	0.3952	0.3880
	0.3873	0.3831
	0.3854	0.3768
	0.3810	0.3741
	0.3784	0.3647
	0.3898	0.3716
Reference Range: 3710~4000K		

Bin	CIE X	CIE Y
40K-F	0.3890	0.3887
	0.3793	0.3828
	0.3779	0.3773
	0.3873	0.3831
Reference Range: 3870~4080K		

Bin	CIE X	CIE Y
40K-G	0.3873	0.3831
	0.3779	0.3773
	0.3764	0.3713
	0.3854	0.3768
Reference Range: 3870~4080K		

4500K

Bin	CIE X	CIE Y
45K-A	0.3736	0.3874
	0.3642	0.3805
	0.3626	0.3714
	0.3658	0.3738
	0.3648	0.3686
	0.3703	0.3726
Reference Range: 4260~4500K		

Bin	CIE X	CIE Y
45K-B	0.3642	0.3805
	0.3548	0.3736
	0.3530	0.3601
	0.3584	0.3640
	0.3592	0.3689
	0.3626	0.3714
Reference Range: 4500~4745K		

Bin	CIE X	CIE Y
45K-C	0.3530	0.3601
	0.3512	0.3465
	0.3591	0.3522
	0.3607	0.3608
	0.3575	0.3585
	0.3584	0.3640
Reference Range: 4500~4745K		

Bin	CIE X	CIE Y
45K-D	0.3703	0.3726
	0.3648	0.3686
	0.3637	0.3630
	0.3607	0.3608
	0.3591	0.3522
	0.3670	0.3578
Reference Range: 4260~4500K		

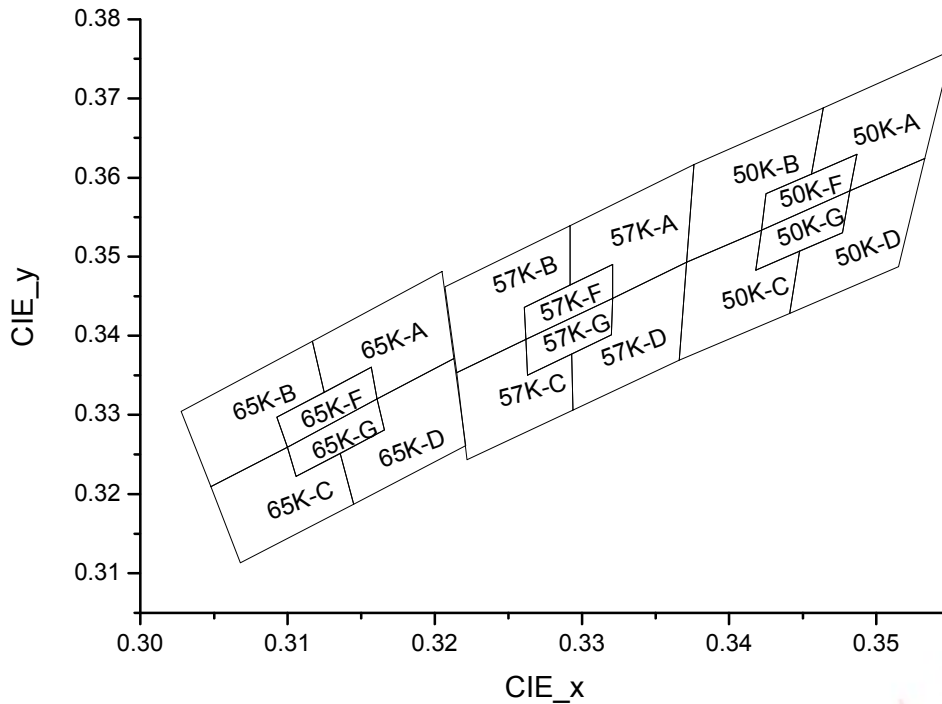
Bin	CIE X	CIE Y
45K-F	0.3658	0.3738
	0.3592	0.3689
	0.3584	0.3640
	0.3648	0.3686
Reference Range: 4400~4580K		

Bin	CIE X	CIE Y
45K-G	0.3648	0.3686
	0.3584	0.3640
	0.3575	0.3585
	0.3637	0.3630
Reference Range: 4400~4580K		

Note:

1. Color coordinates measurement allowance : ± 0.01 .

Cool-White Bin Structure



Cool-White Bin Coordinates

5000K

Bin	CIE X	CIE Y
50K-A	0.3551	0.3760
	0.3464	0.3688
	0.3456	0.3604
	0.3487	0.3629
	0.3482	0.3583
	0.3533	0.3624
Reference Range: 4745~5000K		

Bin	CIE X	CIE Y
50K-B	0.3464	0.3688
	0.3376	0.3616
	0.3371	0.3493
	0.3422	0.3533
	0.3425	0.3579
	0.3456	0.3604
Reference Range: 5000~5310K		

Bin	CIE X	CIE Y
50K-C	0.3371	0.3493
	0.3366	0.3369
	0.3441	0.3428
	0.3448	0.3507
	0.3418	0.3483
	0.3422	0.3533
Reference Range: 5000~5310K		

Bin	CIE X	CIE Y
50K-D	0.3533	0.3624
	0.3482	0.3583
	0.3477	0.3530
	0.3448	0.3507
	0.3441	0.3428
	0.3515	0.3487
Reference Range: 4745~5000K		

Bin	CIE X	CIE Y
50K-F	0.3487	0.3629
	0.3425	0.3579
	0.3422	0.3533
	0.3482	0.3583
Reference Range: 4900~5120K		

Bin	CIE X	CIE Y
50K-G	0.3482	0.3583
	0.3422	0.3533
	0.3418	0.3483
	0.3477	0.3530
Reference Range: 4900~5120K		

5700K

Bin	CIE X	CIE Y
57K-A	0.3376	0.3616
	0.3292	0.3539
	0.3292	0.3464
	0.3321	0.3490
	0.3321	0.3447
	0.3371	0.3493
Reference Range: 5310~5700K		

Bin	CIE X	CIE Y
57K-B	0.3292	0.3539
	0.3207	0.3462
	0.3215	0.3353
	0.3262	0.3395
	0.3261	0.3436
	0.3292	0.3464
Reference Range: 5700~6020K		

Bin	CIE X	CIE Y
57K-C	0.3215	0.3353
	0.3222	0.3243
	0.3294	0.3306
	0.3293	0.3377
	0.3263	0.3350
	0.3262	0.3395
Reference Range: 5700~6020K		

Bin	CIE X	CIE Y
57K-D	0.3371	0.3493
	0.3321	0.3447
	0.3320	0.3401
	0.3293	0.3377
	0.3294	0.3306
	0.3366	0.3369
Reference Range: 5310~5700K		

Bin	CIE X	CIE Y
57K-F	0.3321	0.3490
	0.3261	0.3436
	0.3262	0.3395
	0.3321	0.3447
Reference Range: 5510~5780K		

Bin	CIE X	CIE Y
57K-G	0.3321	0.3447
	0.3262	0.3395
	0.3263	0.3350
	0.3320	0.3401
Reference Range: 5510~5780K		

6500K

Bin	CIE X	CIE Y
65K-A	0.3205	0.3481
	0.3117	0.3393
	0.3125	0.3328
	0.3157	0.3360
	0.3161	0.3320
	0.3213	0.3371
Reference Range: 6020~6500K		

Bin	CIE X	CIE Y
65K-B	0.3117	0.3393
	0.3028	0.3304
	0.3048	0.3209
	0.3100	0.3259
	0.3093	0.3297
	0.3125	0.3328
Reference Range: 6500~7050K		

Bin	CIE X	CIE Y
65K-C	0.3048	0.3209
	0.3068	0.3113
	0.3145	0.3187
	0.3136	0.3251
	0.3106	0.3222
	0.3100	0.3259
Reference Range: 6500~7050K		

Bin	CIE X	CIE Y
65K-D	0.3213	0.3371
	0.3161	0.3320
	0.3166	0.3281
	0.3136	0.3251
	0.3145	0.3187
	0.3221	0.3261
Reference Range: 6020~6500K		

Bin	CIE X	CIE Y
65K-F	0.3157	0.3360
	0.3093	0.3297
	0.3100	0.3259
	0.3161	0.3320
Reference Range: 6300~6690K		

Bin	CIE X	CIE Y
65K-G	0.3161	0.3320
	0.3100	0.3259
	0.3106	0.3222
	0.3166	0.3281
Reference Range: 6300~6690K		

Note:

1. Color coordinates measurement allowance : ± 0.01 .

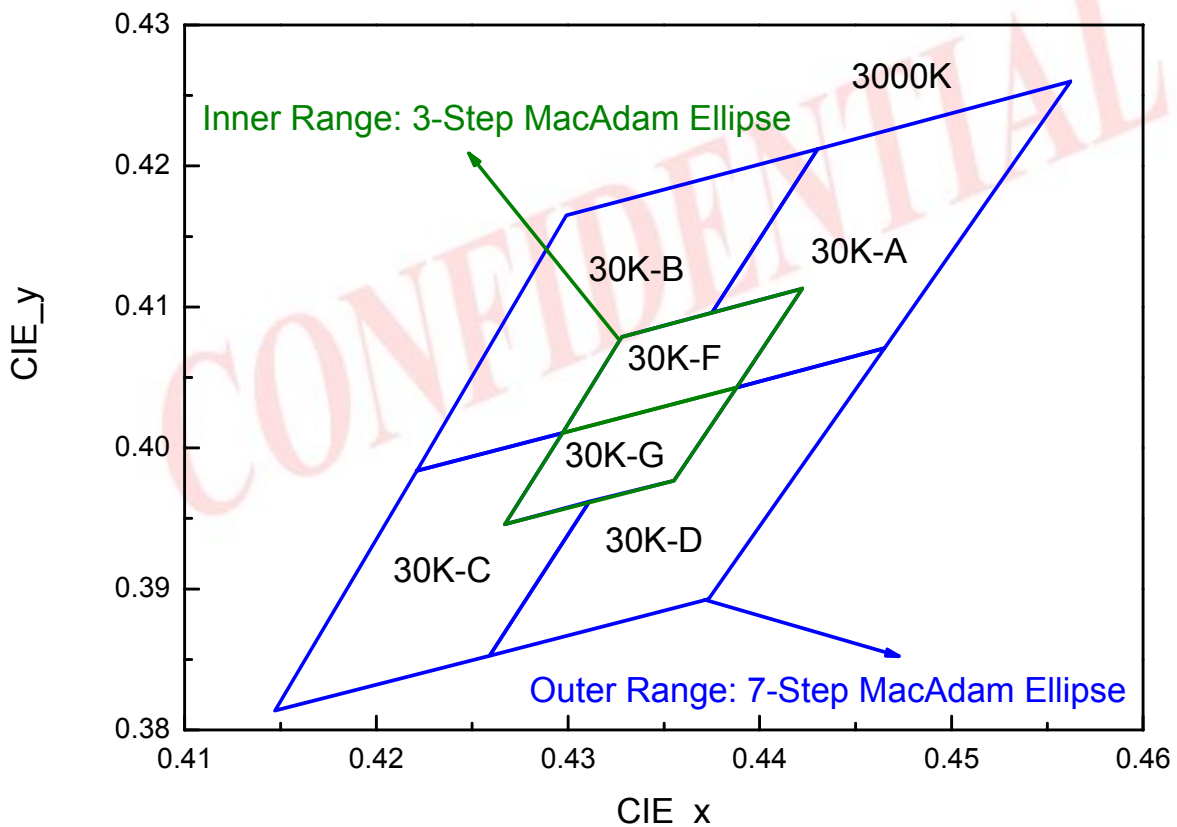
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Suggestion of Color Bin Combination

1. Each CCT Bin consists of 6 smaller bins designated as -A, -B, -C, -D, -F, and -G. For example, the 3000K consists of 30K-A, 30K-B, 30K-C, 30K-D, 30K-F, and 30K-G.
2. Any single CCT Bin is defined as inside 7-step Macadam Ellipse, and the combination of smaller -F and -G bins inside it are defined as inside 3-step Macadam Ellipse.
3. Through bin combination, it is possible to get a good color uniformity. Please refer to following combination rule for getting good color uniformity mentioned above:

- Kit 1: To combine -A bin with -C bin with 1:1 mixing rate for approaching 3-step Macadam Ellipse
Kit 2: To combine -B bin with -D bin with 1:1 mixing rate for approaching 3-step Macadam Ellipse
Kit 3: To combine -F bin with -C or -D bin with 1:1 mixing rate for approaching 4-step Macadam Ellipse
Kit 4: To combine -G bin with -A or -B bin with 1:1 mixing rate for approaching 4-step Macadam Ellipse
Kit 5: -F or -G bin only will be inside 3-step Macadam Ellipse

An Example of 3000K Combination



Note:

1. The percentage of each bin is determined by EVERLIGHT

Forward Voltage Bins

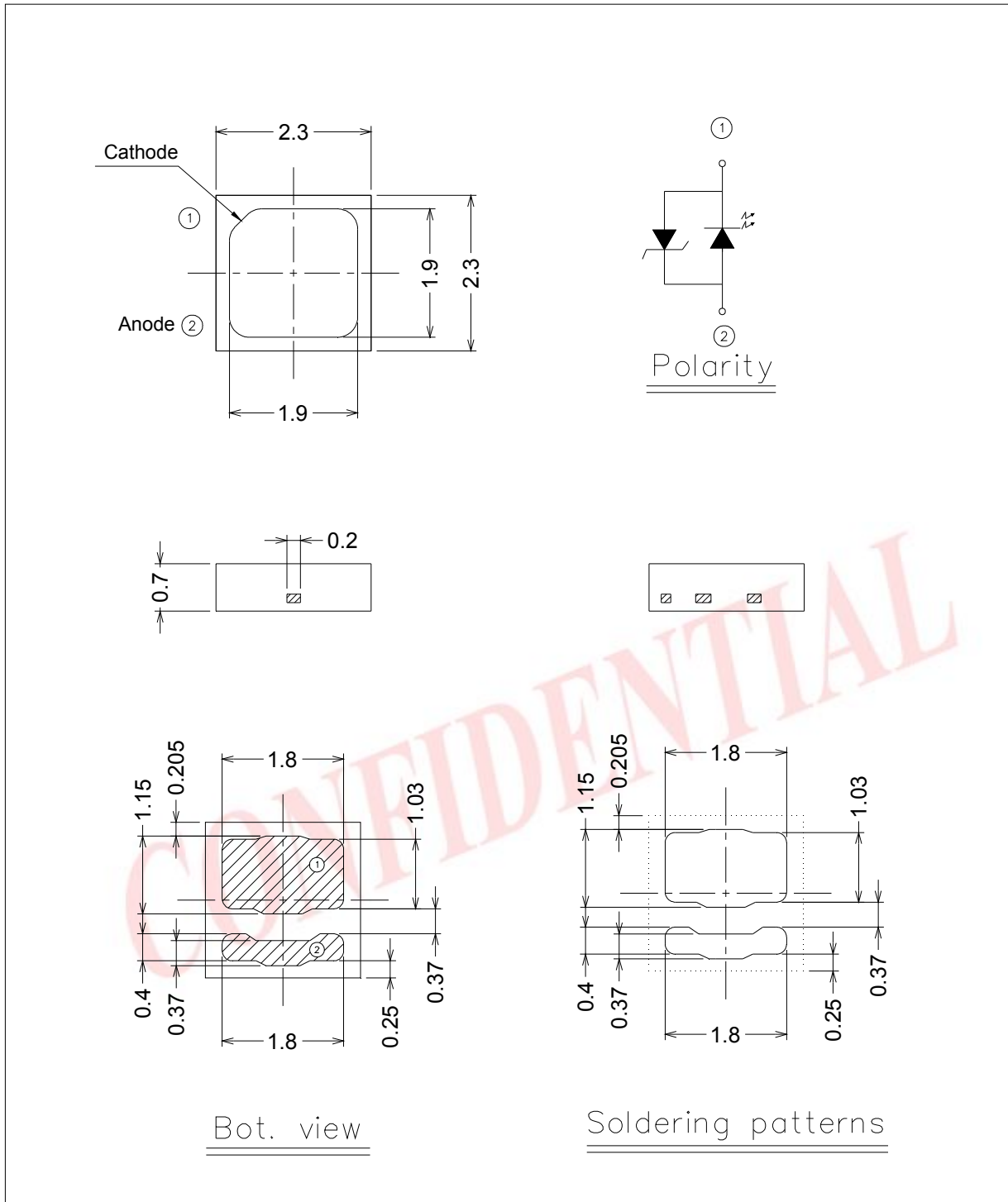
Bin		Minimum Forward Voltage (V)	Maximum Forward Voltage (V)
B63	33	2.60	2.70
	34	2.70	2.80
	35	2.80	2.90
	36	2.90	3.00
	37	3.00	3.10
	38	3.10	3.20
	39	3.20	3.30

Notes:

1. Forward voltage measurement tolerance: $\pm 0.1V$.
2. Forward voltage bins are defined at $I_f=65mA$ operation.

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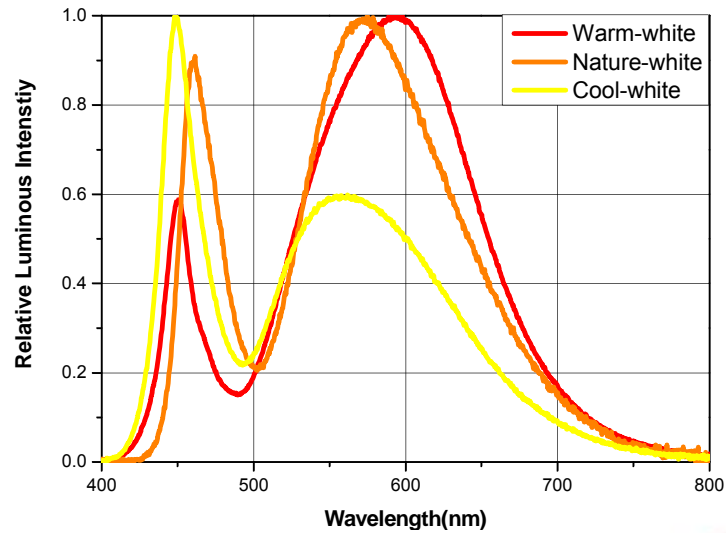
Package Dimension



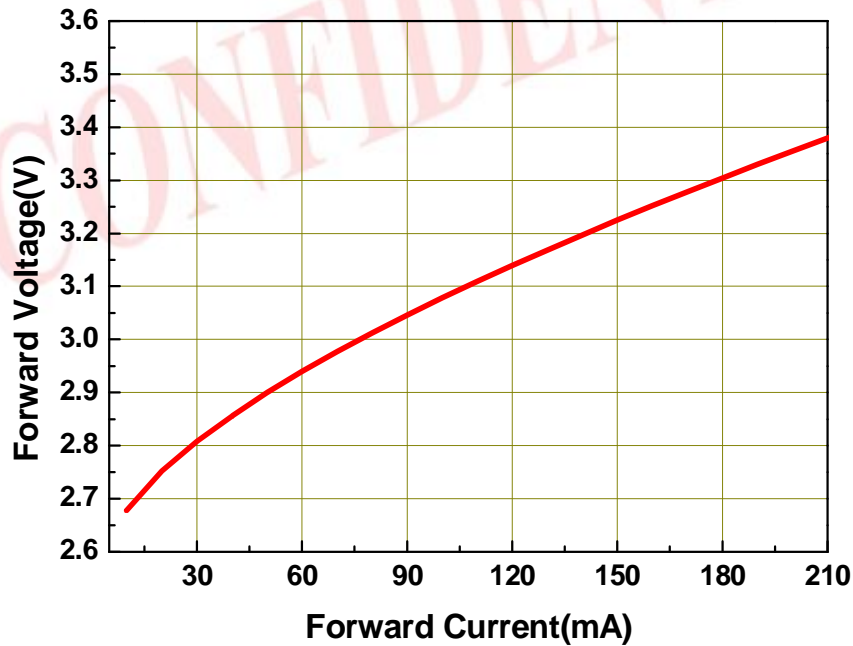
Notes:

1. Dimensions are in millimeters.
2. Tolerances unless mentioned are $\pm 0.2\text{mm}$.
3. The thermal pad is electrically unity from the Anode and contact pads.
4. Do not handle the device by the lens. Incorrect force applied to the lens may lead to the failure of devices.

Wavelength Characteristics For Cool-White, Warm-White Relative Spectral Distribution @ Solder Pad Temperature = 25

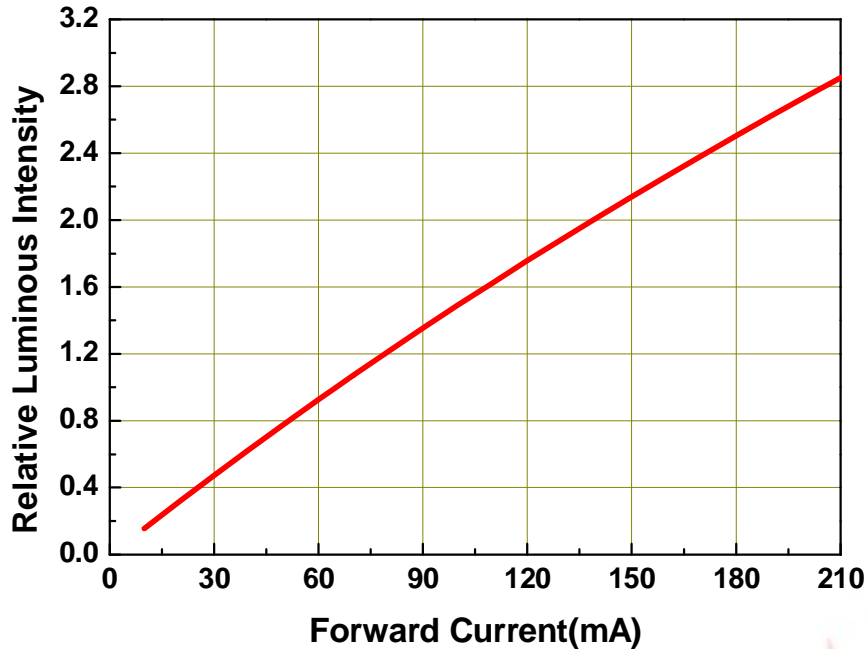


Typical Electrical -Optical Characteristics For Cool-White, Warm-White @ Solder Pad Temperature = 25



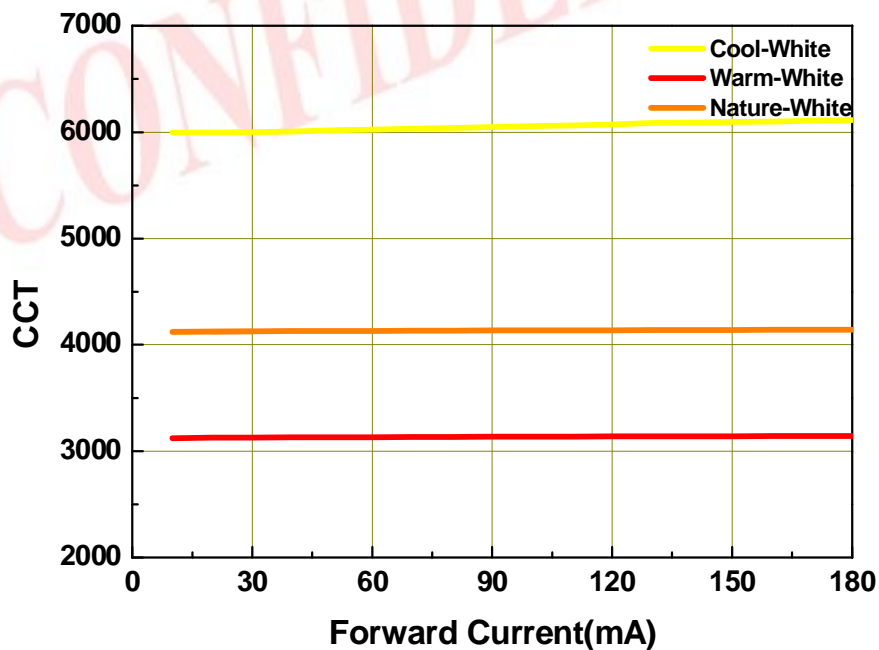
Typical Relative Luminous Flux vs. Forward Current

For Cool-White, Warm-White, Neutral White
@ Solder Pad Temperature = 25

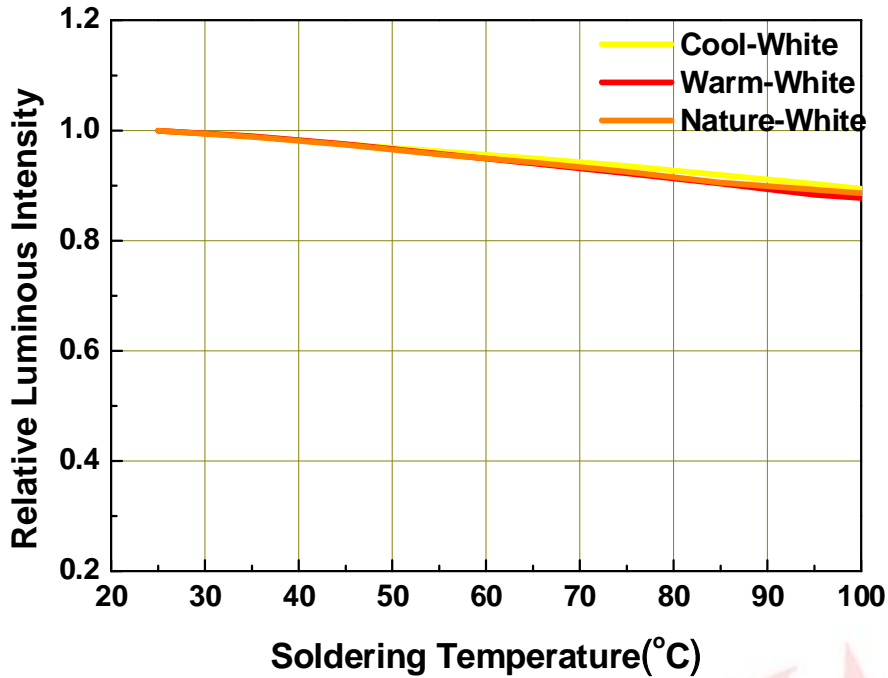


Typical Wavelength & Color Shift Characteristics vs. Forward Current

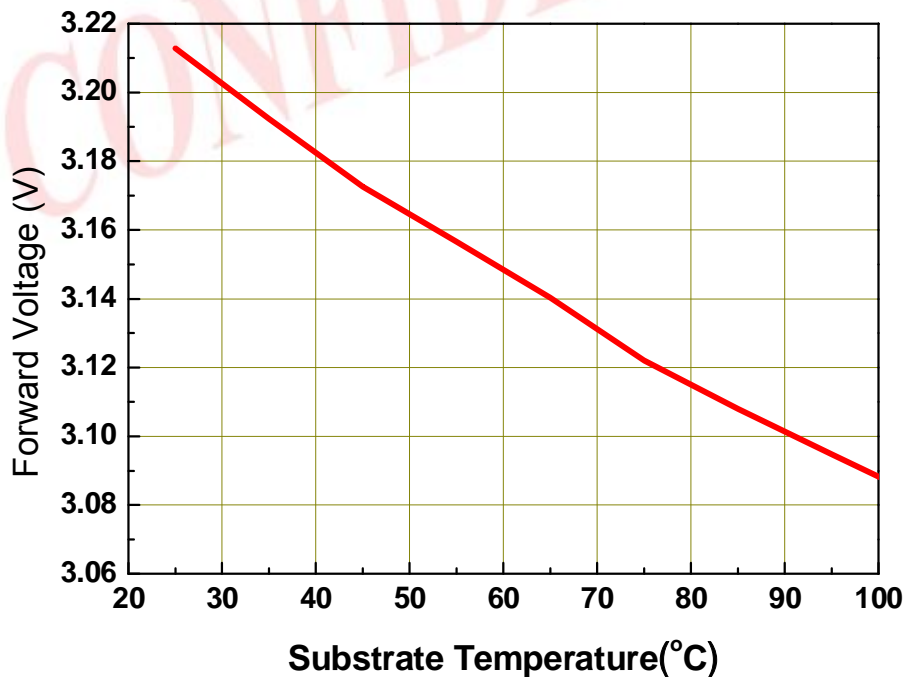
For Cool-White, Warm-White, Neutral White
@ Solder Pad Temperature = 25



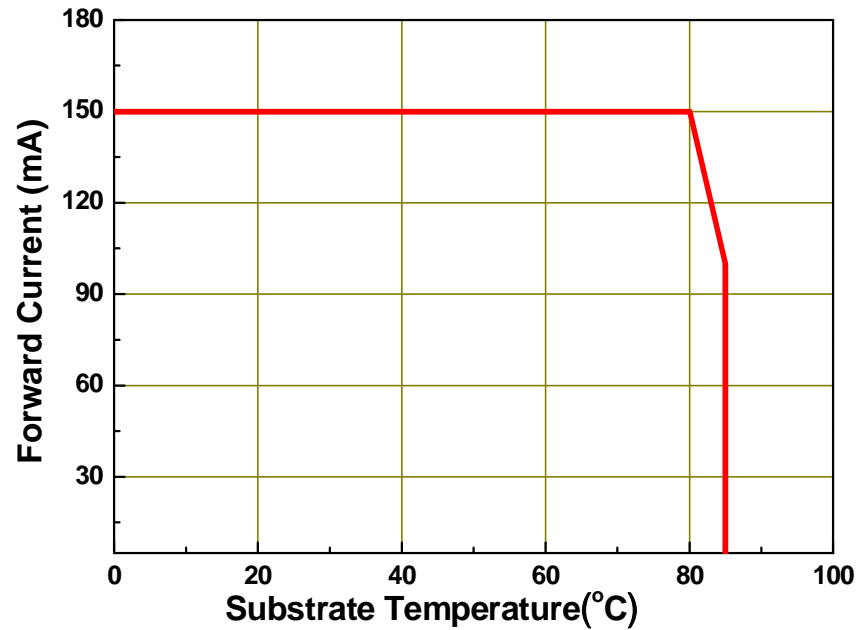
Relative Luminous Flux vs. Soldering Temperature
For Cool-White, Warm-White, Neutral White
@Forward Current = 65mA



Forward Voltage vs. Soldering Temperature
For Cool-White, Warm-White, Neutral White
@ Forward Current = 65mA

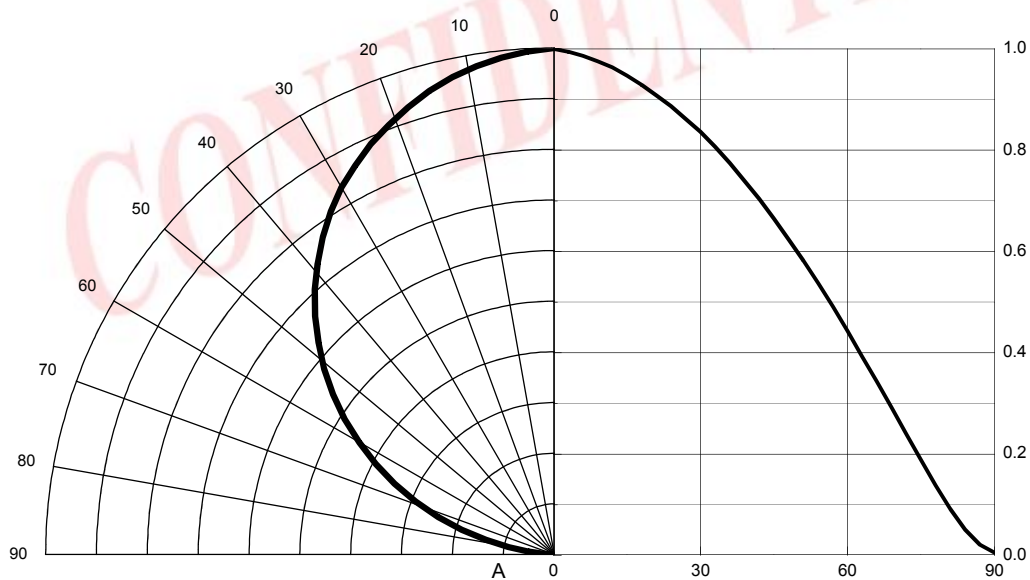


**Forward Current Derating Curve
@ Junction Temperature <115**



Typical Radiation Patterns

X12323 series: Typical Diagram Characteristics of Radiation for Warm-White and Cool-White

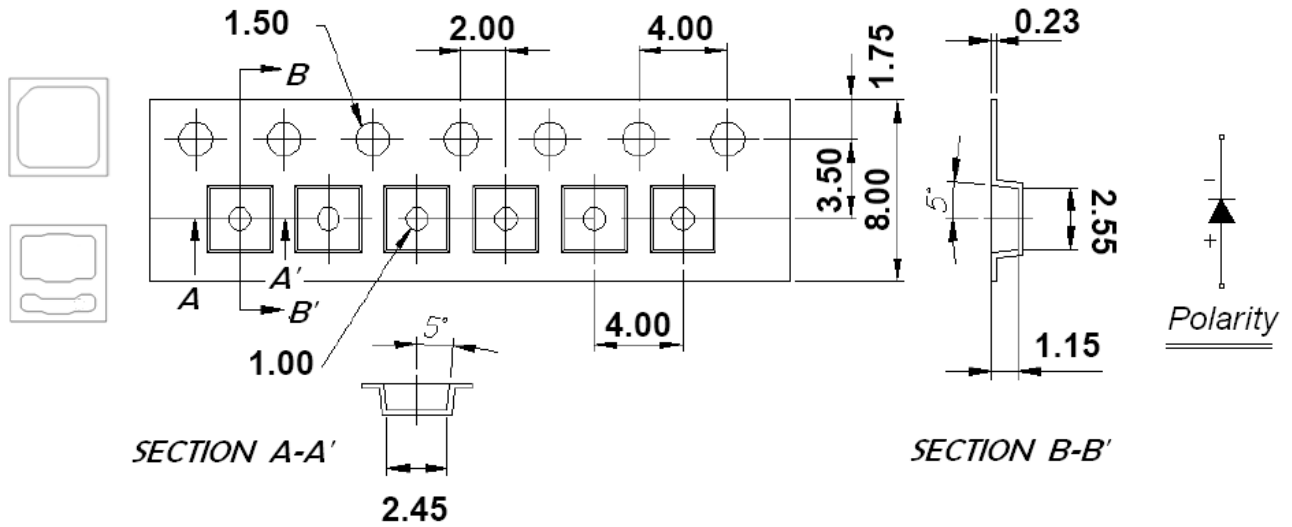


Notes:

1. $2\theta_{1/2}$ is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
2. View angle tolerance is $\pm 5^\circ$.

Emitter Tape Packaging

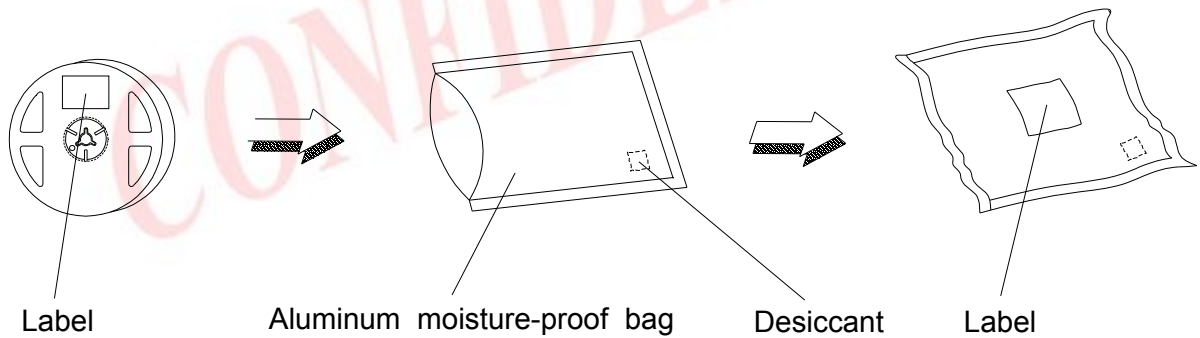
Carrier Tape Dimensions: Loaded Quantity 2000 pcs Per Reel



Note:

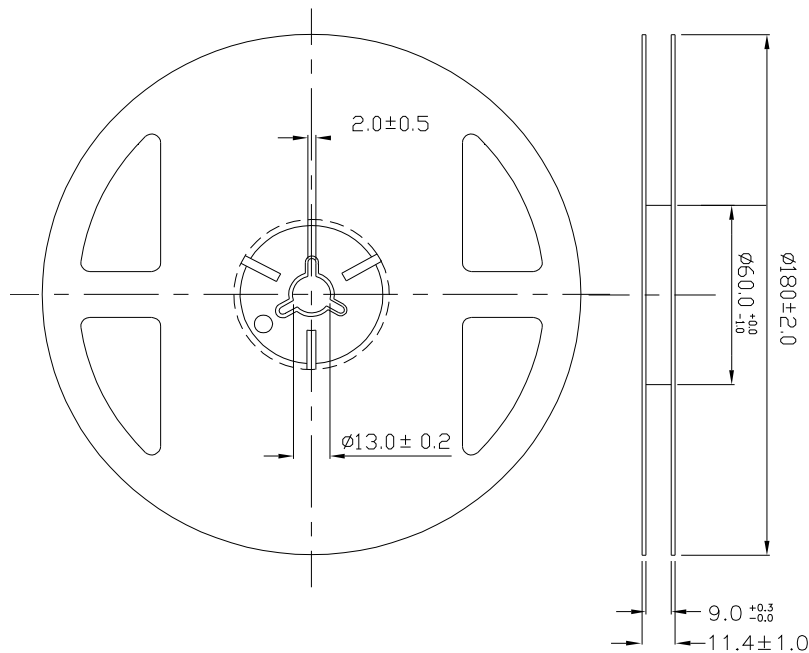
1. Tolerance unless mentioned is $\pm 0.1\text{mm}$; Unit = mm
2. Minimum packing amount is 250/500/1000/2000 pcs per reel.

Moisture Resistant Packing Process



Emitter Reel Packaging

Reel Dimensions



Note:
Tolerances unless mentioned ± 0.1 mm. Unit = mm

Product Labeling

Label Explanation



- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- CAT: Luminous Intensity Rank
- HUE: Dom. Wavelength Rank
- REF: Forward Voltage Rank
- LOT No: Lot Number

Reliability Data

Stress Test	Stress Condition	Stress Duration
Reflow	Tsol=260 , 10sec	3 times
Thermal Shock	H : + 100 20min. ↓ 10sec. 'L : - 10 20min.	300 Cycles
Power Temperature Cycle	H : + 85 15min. ↓ 5min. 'L : - 40 15min. IF=150mA	300 Cycles
High Temperature/Humidity Operation	Ta=85 , RH=85%, IF=100mA	1000hours
Room Temperature Operation Life	Ta=25 , IF=150mA	1000hours
High Temperature Operation Life #1	Ta=55 , IF=150mA	1000hours
High Temperature Operation Life #2	Ta=85 , IF=100mA	1000hours
Low Temperature Operation Life	Ta=-40 , IF=150mA	1000hours
Pulse	30ms ON/2500ms OFF / 30000 Cycles IF=210mA	30ms ON/2500ms OFF / 30000 Cycles

Failure Criteria:

1. LEDs are open or shorted
2. Im: luminous flux attenuate difference(1000hrs)>50%
3. VF: forward voltage difference(1000hrs)>20%

Precautions for Use

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 Before the package is opened: The LEDs should be stored at 30°C or less and 50%RH or less after being shipped from Everlight. The storage life is 6 months. If the LEDs are to be stored for more than 6 months, they should be stored in a sealed container with a nitrogen atmosphere and moisture absorbent material.

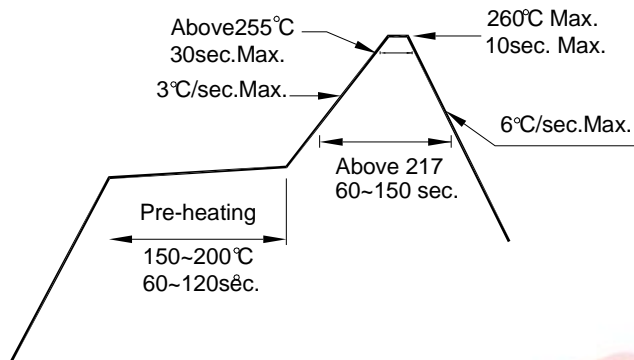
2.2 After opening the package: The LED's should be stored under 30 or less and 30%RH or less. The LED should be used within 168hrs (7days) after opening the package. If unused LEDs remain, they should be stored in moisture proof packages.

2.3 Before using LEDs: The LEDs should be baked under the following conditions: pre-curing at 60±5 for 24 hours.

2.4 Do not stack assemblies containing Everlight XI2323 LEDs to prevent damage to the optical surface of LEDs. Forces applied to the optical surface may result in the surface being damaged.

3. Soldering Condition

3.1 Pb-free solder temperature profile



3.2 Reflow soldering should not be done more than two times.

3.3 When soldering, do not put stress on the LEDs during heating.

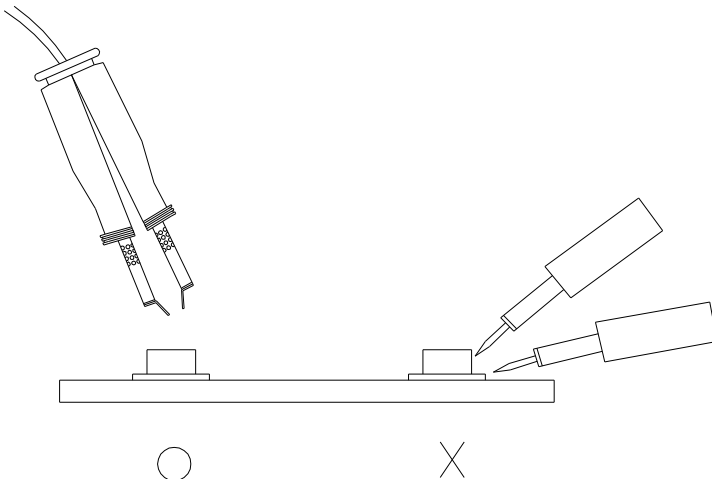
3.4 After soldering, do not warp the circuit board.

4. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than 350 for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

5. Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.



Revision History

Current version: 07.22.2013
Issue No: DSE-0009113
Version: 2
Created by: Betty Hong

Page	Subjects (major change in previous version)	Date of change
P8	Add Reference Optic-Electrical Characteristic 100mA/120mA/150mA	Jul-22-2013

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