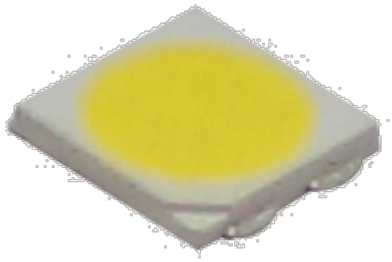
Model | AS-5258WxA2-C2C210-0303-YCx

Product Characteristics:



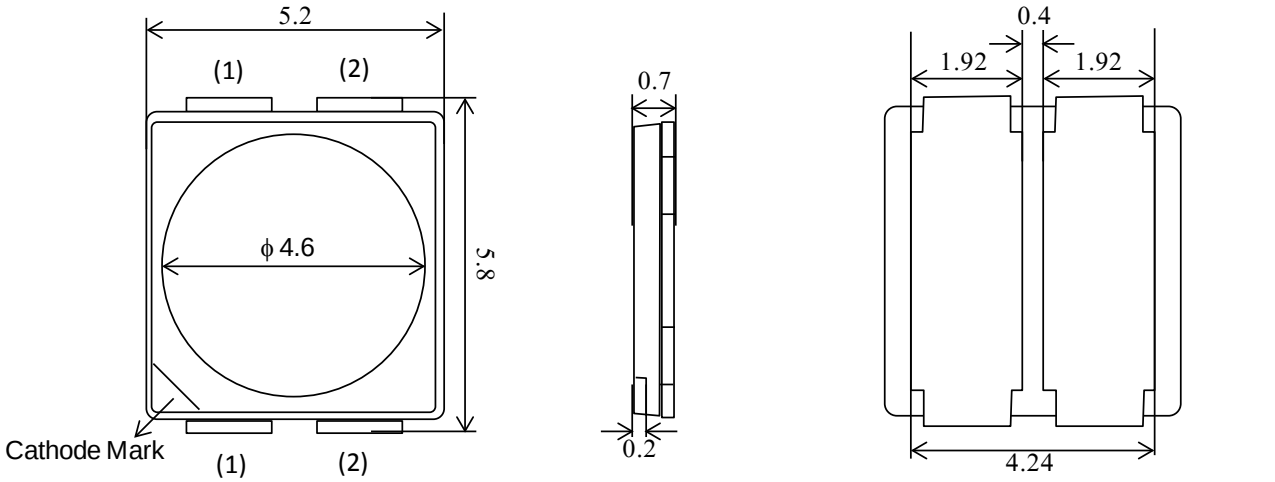
Absolute Maximum Ratings (Ta = 25°C)

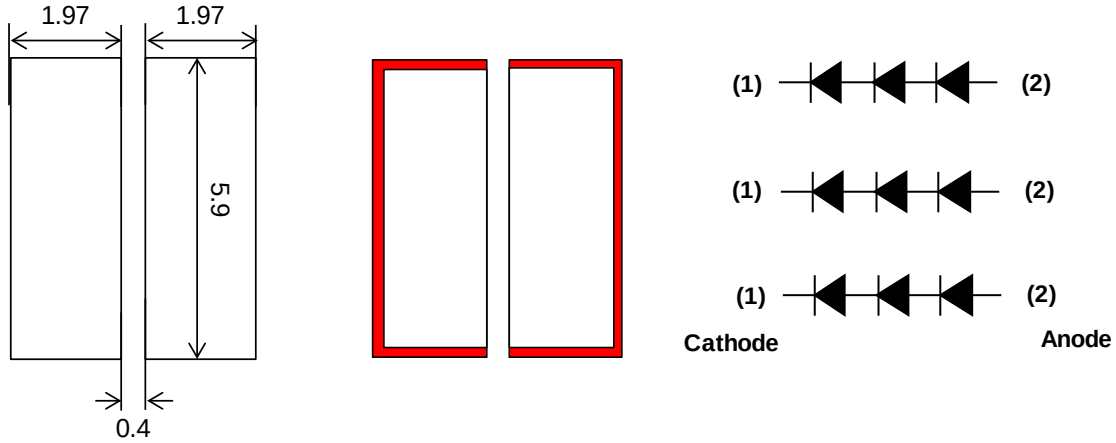
Items	Symbol	Absolute Maximum Rating	Unit
Power Dissipation	P_D	3.2	W
Forward Current(DC)	I_F	0.36	A
Peak Forward Current*	I_{FP}	0.72	A
Thermal Resistance	R_{th}	14	°C/W
Operation Temperature	T_{opr}	-40 ~ +100	°C
Storage Temperature	T_{stg}	-40 ~ +100	°C
Reflow Soldering Temperature	T_{sol}	260°C for 5 seconds	°C

*Pulse width≦0.1msec duty≦1/10

ATTENTION
OBSERVE PRECAUTION
ELECTROSTATIC
SENSITIVE DEVICES

Package Dimensions:





Surface color / Diffused: White / YES

Notes:

All dimensions are in mm with tolerance ±0.25mm unless otherwise noted.

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

Items		Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage		**V_F**	**I_F = 210mA**	---	8.7	---	**V**
Reverse Current*		**I_R**	**V_R = 5V**	---	---	10	**μA**
Chromatic Coordinates	**6500K**	**(x, y)**	**I_F = 210mA**	(0.30,0.29)	---	(0.32,0.34)	**---**
	5000K			(0.33,0.32)	---	(0.36,0.38)	
	4000K			(0.37,0.35)	---	(0.40,0.41)	
	3000K			(0.41,0.37)	---	(0.46,0.43)	
	2700K			(0.44,0.38)	---	(0.48,0.43)	
50% Power Angle		**2θ½**	**I_F = 210mA**	---	120	---	**Deg**

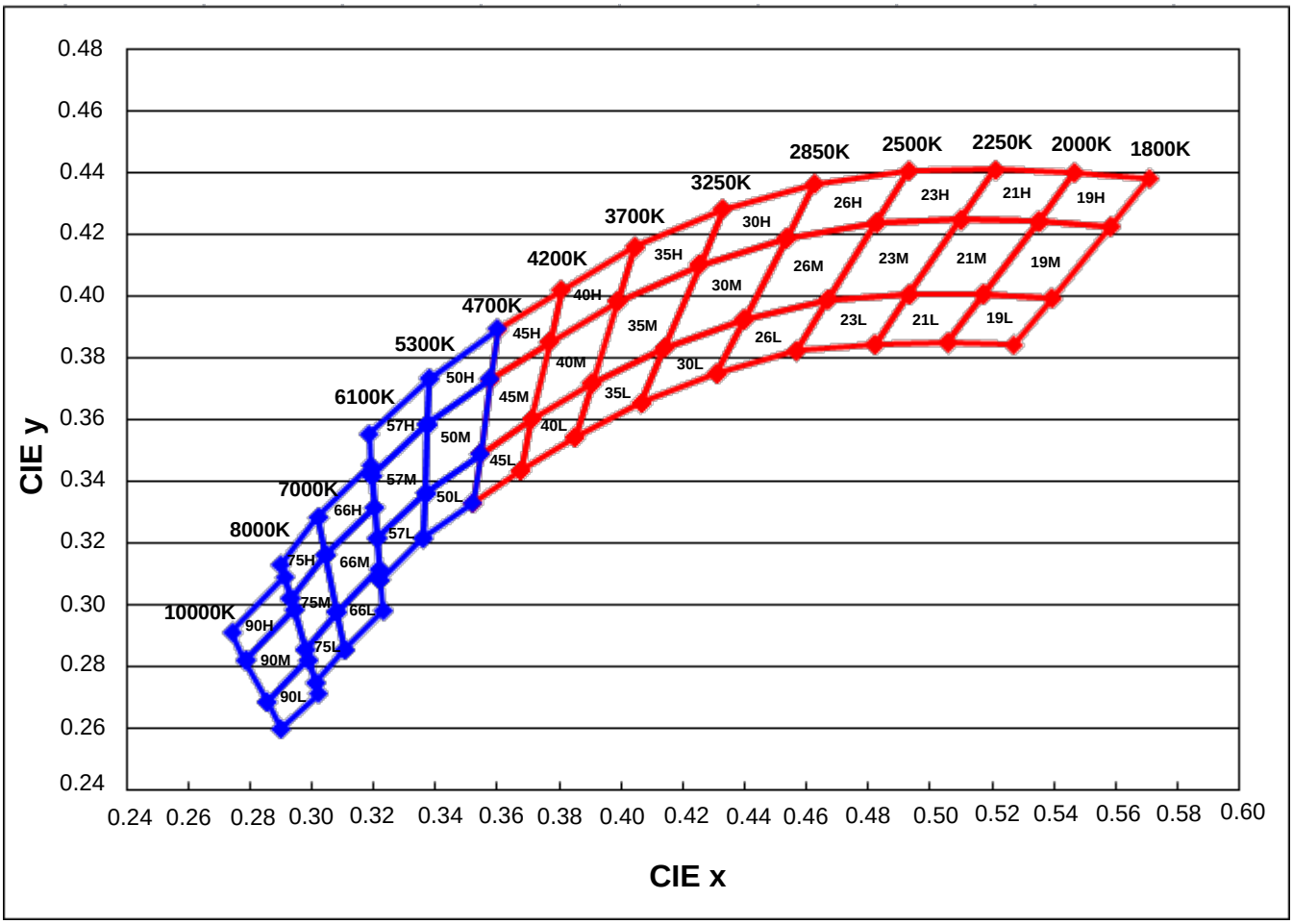
Intensity Ranks (I_F = 210mA)

Rank	H3	I3	J3	K3	L3	M3	N3
Luminous Intensity (lm)	170-190	190-210	210-240	240-270	270-300	300-330	330-360

Vf Ranks (I_F = 210mA)

Rank	V3B	V3C	V3D	V3E	V3F	V3G	V3H
Forward Voltage (V)	7.8-8.1	8.1-8.4	8.4-8.7	8.7-9.0	9.0-9.3	9.3-9.6	9.6-9.9

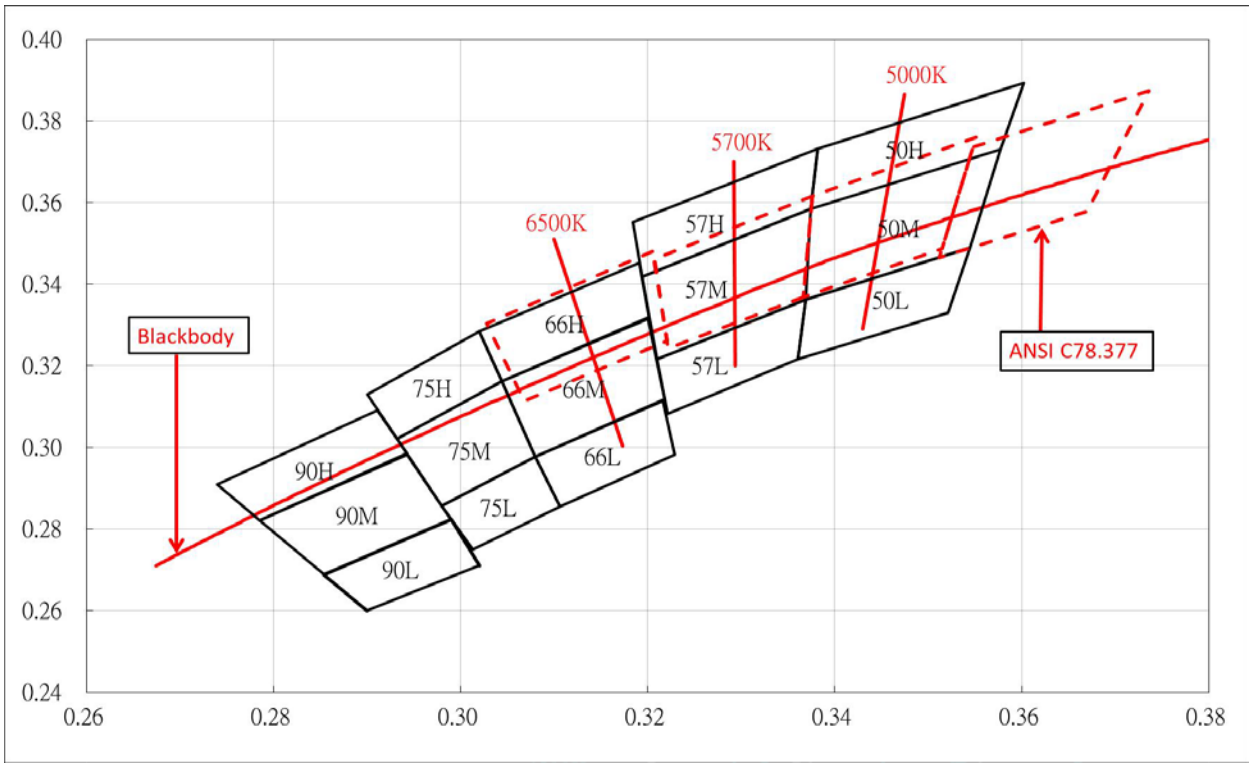
CIE Chromaticity Diagram:



Notes:

1. Tolerance of measurement of luminous intensity : ±15%
2. Tolerance of measurement of Chromatic Coordinates :±0.01
3. Tolerance of measurement of forward voltage : ±0.1V
4. Tolerance of measurement of CRI : ±2
5. All ranks will be included per normal delivery and rank rations will be determined by Alder.
6. Please confirm with us if your request is different from standard specification.

Cool White CIE Chromaticity Diagram:



Cool White Chromatic Coordinates Ranks

10000K-8000K		
Bin Code	x	y
90H	0.2785	0.2821
	0.2740	0.2910
	0.2911	0.3091
	0.2943	0.2985
90M	0.2854	0.2688
	0.2785	0.2821
	0.2943	0.2982
	0.2990	0.2823
90L	0.2900	0.2600
	0.2854	0.2688
	0.2990	0.2823
	0.3020	0.2710

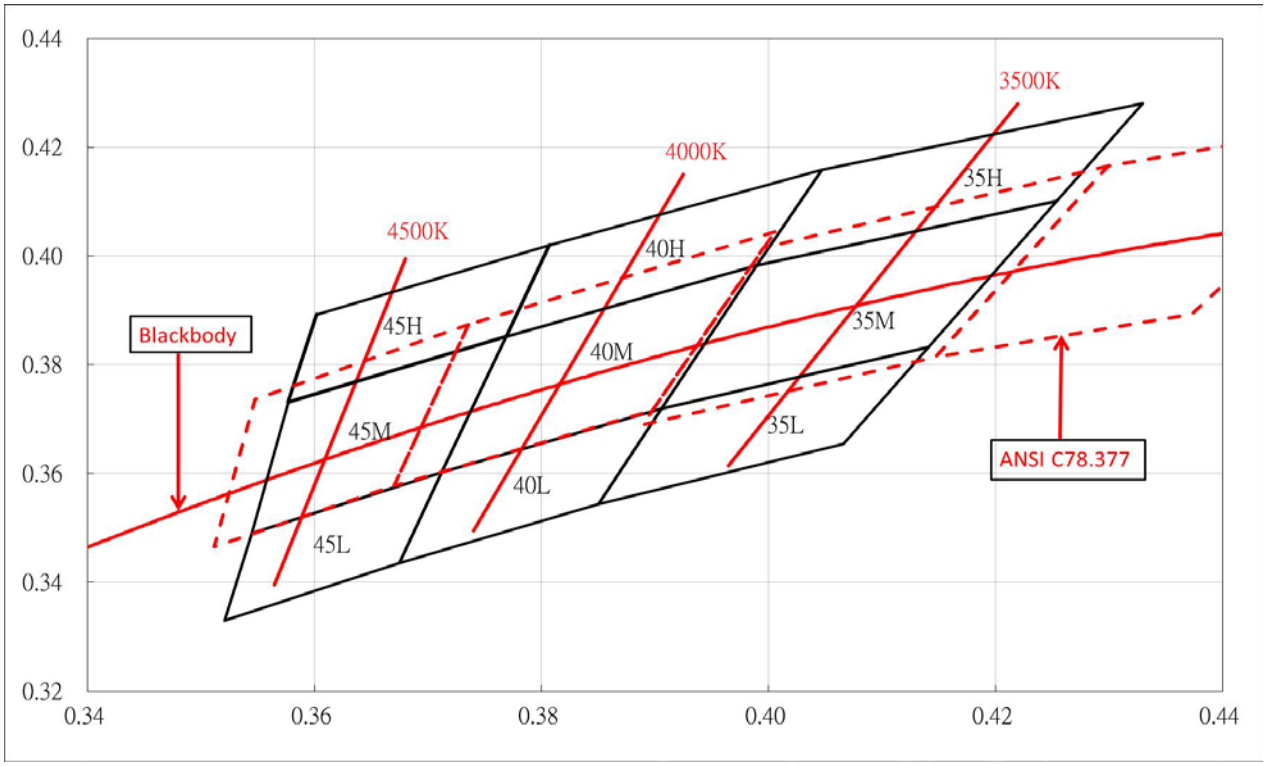
8000K-7000K		
Bin Code	x	y
75H	0.2932	0.3021
	0.2900	0.3130
	0.3020	0.3285
	0.3044	0.3162
75M	0.2980	0.2857
	0.2932	0.3021
	0.3044	0.3162
	0.3080	0.2977
75L	0.3013	0.2749
	0.2980	0.2857
	0.3080	0.2977
	0.3106	0.2855

7000K-6100K		
Bin Code	x	y
66H	0.3044	0.3162
	0.3020	0.3285
	0.3191	0.3453
	0.3202	0.3317
66M	0.3080	0.2977
	0.3044	0.3162
	0.3200	0.3318
	0.3218	0.3116
66L	0.3106	0.2855
	0.3080	0.2977
	0.3216	0.3116
	0.3229	0.2982

6100K-5300K		
Bin Code	x	y
57H	0.3194	0.3418
	0.3184	0.3553
	0.3382	0.3732
	0.3374	0.3584
57M	0.3210	0.3216
	0.3194	0.3418
	0.3374	0.3584
	0.3369	0.3363
57L	0.3221	0.3082
	0.3210	0.3216
	0.3369	0.3363
	0.3361	0.3216

5300K-4700K		
Bin Code	x	y
50H	0.3374	0.3584
	0.3382	0.3732
	0.3602	0.3893
	0.3577	0.3731
50M	0.3369	0.3363
	0.3374	0.3584
	0.3577	0.3731
	0.3545	0.3490
50L	0.3361	0.3216
	0.3369	0.3363
	0.3545	0.3490
	0.3521	0.3330

Neutral White CIE Chromaticity Diagram:



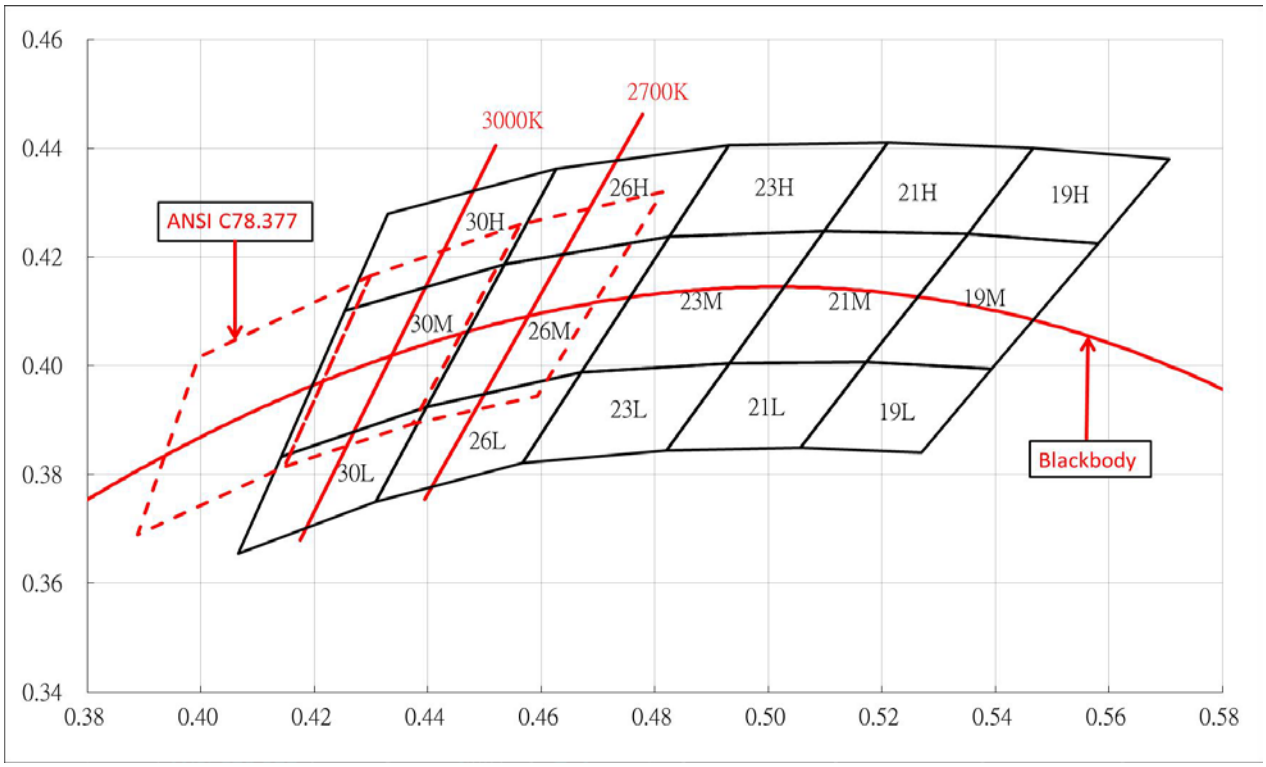
Neutral White Chromatic Coordinates Ranks

4700K-4200K		
Bin Code	x	y
45H	0.3577	0.3731
	0.3602	0.3893
	0.3807	0.4020
	0.3769	0.3852
45M	0.3545	0.3490
	0.3577	0.3731
	0.3769	0.3852
	0.3712	0.3602
45L	0.3521	0.3330
	0.3545	0.3490
	0.3712	0.3602
	0.3675	0.3435

4200K-3700K		
Bin Code	x	y
40H	0.3769	0.3852
	0.3807	0.4020
	0.4047	0.4159
	0.3990	0.3983
40M	0.3712	0.3602
	0.3769	0.3852
	0.3990	0.3983
	0.3906	0.3719
40L	0.3675	0.3435
	0.3712	0.3602
	0.3906	0.3719
	0.3850	0.3544

3700K-3250K		
Bin Code	x	y
35H	0.3990	0.3983
	0.4047	0.4159
	0.4330	0.4280
	0.4254	0.4101
35M	0.3906	0.3719
	0.3990	0.3983
	0.4254	0.4101
	0.4141	0.3833
35L	0.3850	0.3544
	0.3906	0.3719
	0.4141	0.3833
	0.4066	0.3655

Warm White CIE Chromaticity Diagram:



Warm White Chromatic Coordinates Ranks

3250K-2850K		
Bin Code	x	y
30H	0.4254	0.4101
	0.4330	0.4280
	0.4626	0.4362
	0.4535	0.4187
30M	0.4141	0.3833
	0.4254	0.4101
	0.4535	0.4187
	0.4398	0.3924
30L	0.4066	0.3655
	0.4141	0.3833
	0.4398	0.3924
	0.4308	0.3750

2850K-2500K		
Bin Code	x	y
26H	0.4535	0.4187
	0.4626	0.4362
	0.4930	0.4405
	0.4826	0.4238
26M	0.4398	0.3924
	0.4535	0.4187
	0.4826	0.4238
	0.4670	0.3988
26L	0.4308	0.3750
	0.4398	0.3924
	0.4670	0.3988
	0.4567	0.3822

2500K-2250K		
Bin Code	x	y
23H	0.4826	0.4238
	0.4930	0.4405
	0.5210	0.4410
	0.5098	0.4248
23M	0.4670	0.3988
	0.4826	0.4238
	0.5098	0.4248
	0.4932	0.4005
23L	0.4567	0.3822
	0.4670	0.3988
	0.4932	0.4005
	0.4821	0.3844

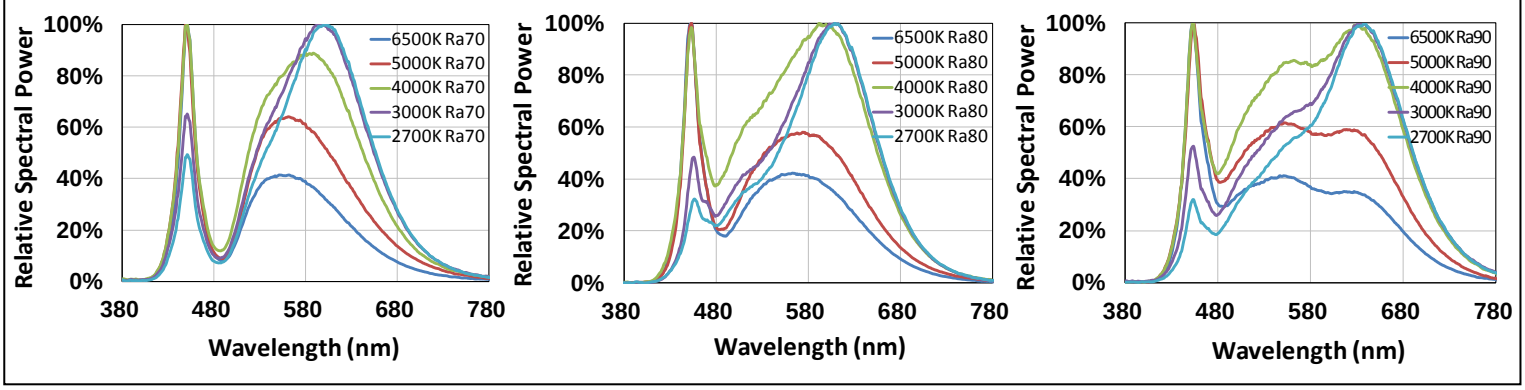
2250K-2000K		
Bin Code	x	y
21H	0.5098	0.4248
	0.5210	0.4410
	0.5467	0.4400
	0.5352	0.4242
21M	0.4932	0.4005
	0.5098	0.4248
	0.5352	0.4242
	0.5172	0.4007
21L	0.4821	0.3844
	0.4932	0.4005
	0.5172	0.4007
	0.5056	0.3850

2000K-1800K		
Bin Code	x	y
19H	0.5352	0.4242
	0.5467	0.4400
	0.5707	0.4380
	0.5582	0.4225
19M	0.5172	0.4007
	0.5352	0.4242
	0.5582	0.4225
	0.5394	0.3994
19L	0.5056	0.3850
	0.5172	0.4007
	0.5394	0.3994
	0.5270	0.3840

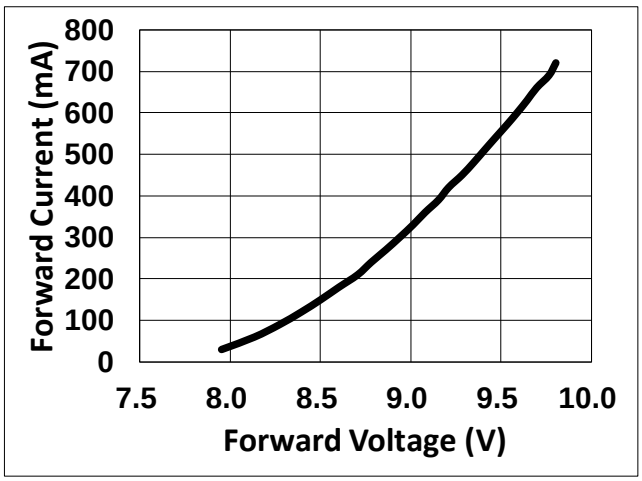
Typical Electrical / Optical Characteristics Curves:

(Ta=25°C Unless Otherwise Noted)

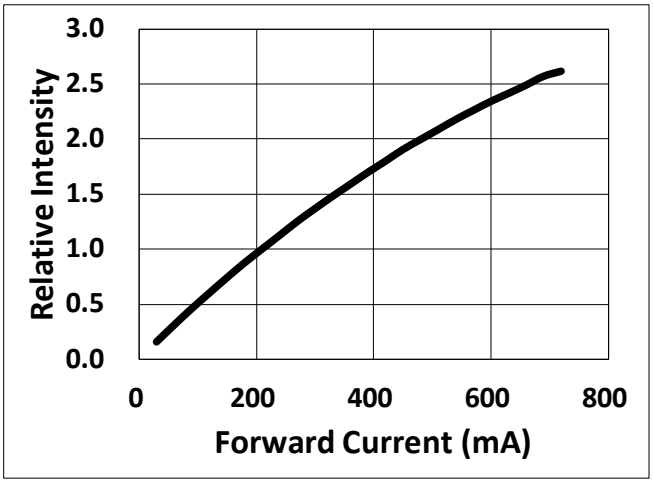
Dominant Wavelength vs. Relative Intensity



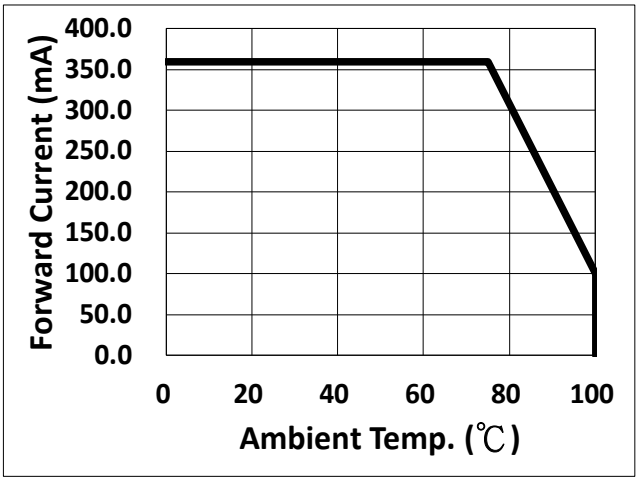
Forward Current vs. Forward Voltage



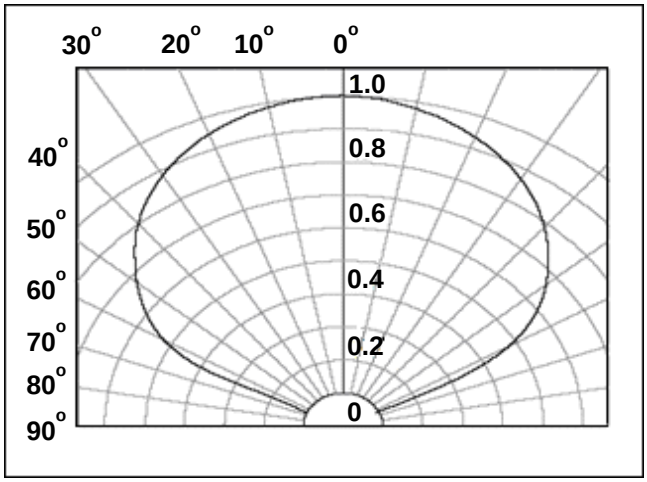
Luminous Intensity vs. Forward Current



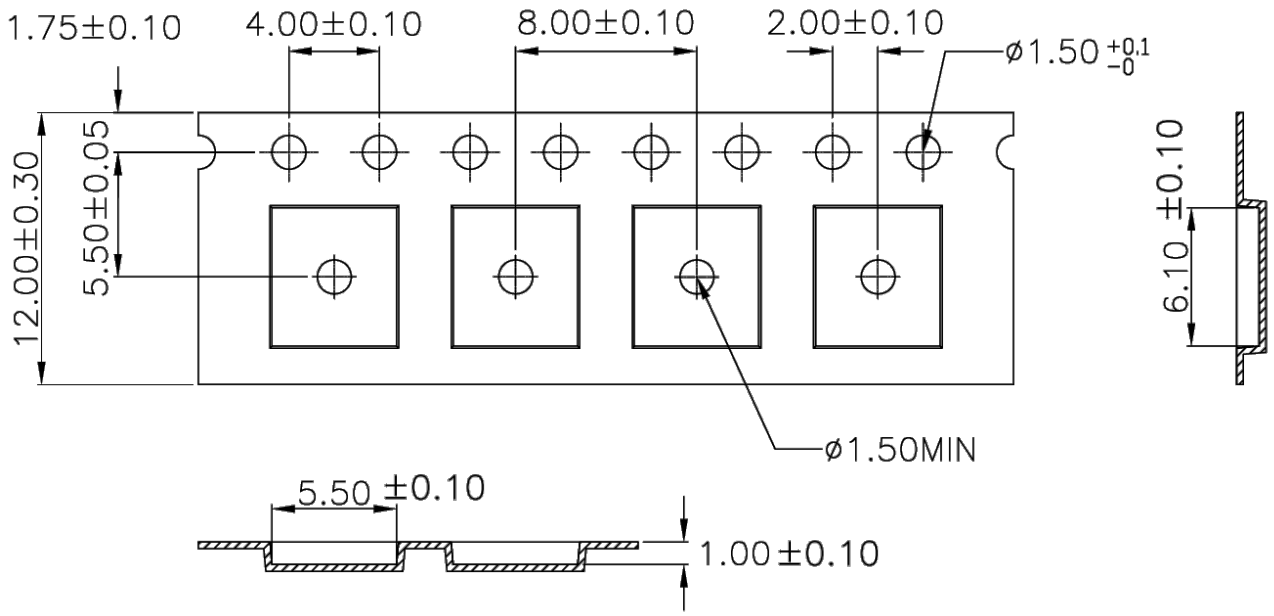
Forward Current vs. Temperature

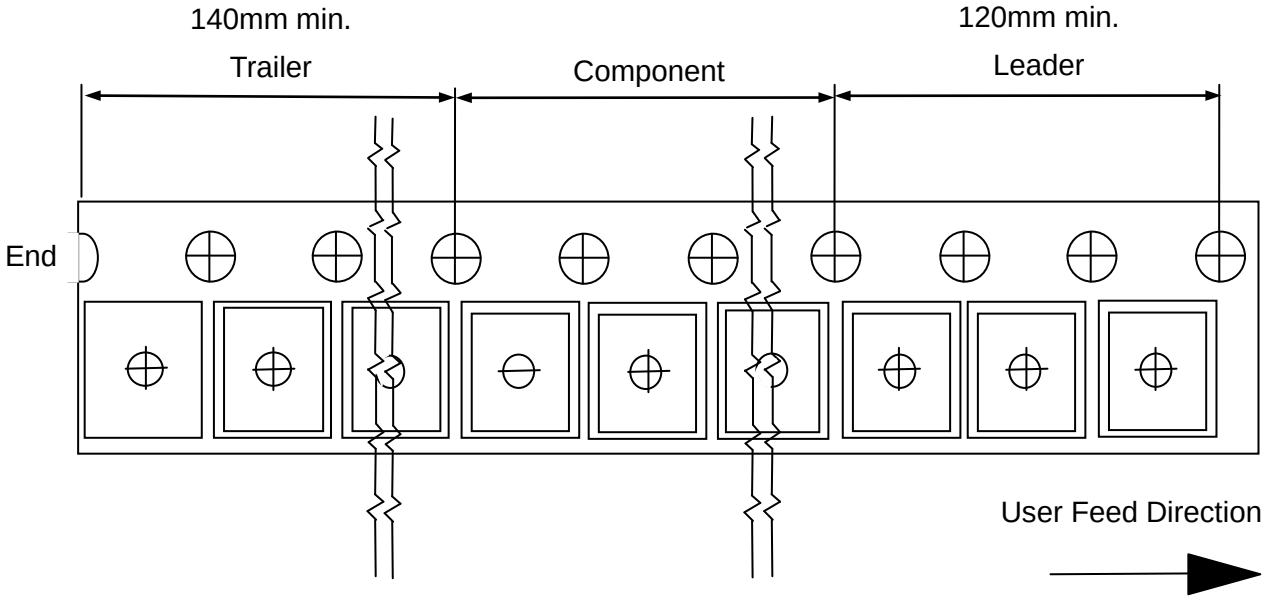


Radiation Pattern



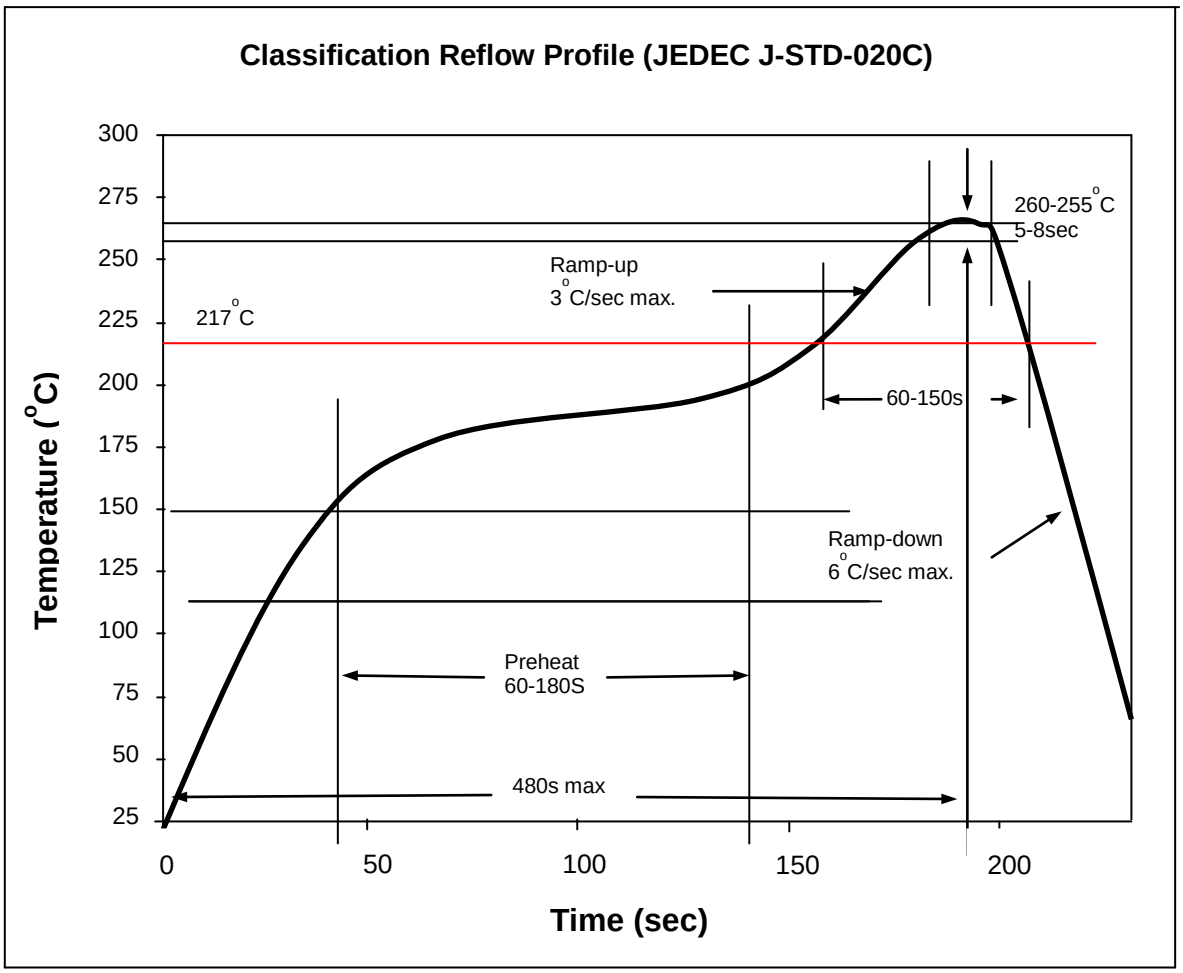
Packing Specifications:





Soldering Heat Reliability:

Lead-Free Solder (JEDEC J-STD-020C)



Manual Soldering.

- Lead Solder

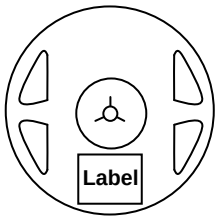
  Max. 300°C for Max. 3sec, and only one time.

- Lead-free Solder

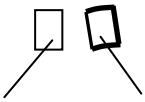
  Max. 350°C for Max. 3sec, and only one time.

- There is a possibility that the brightness of LEDs is decreased, which is influenced by heat or ambient atmosphere during reflow. It is recommended to use the nitrogen reflow method.
- After LEDs have been soldered, repairs should not be done. When repair is unavoidable, a double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will be damaged by repairing or not.
- Reflow soldering should not be done more than two times.

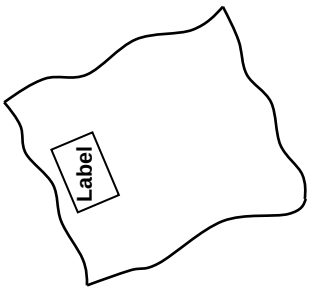
Product Shipment & Package Related:



Item	Diameter	Width	Quantity / Reel
Anti-Static Shielding Black Reel	178 mm	12mm	1000pcs MAX

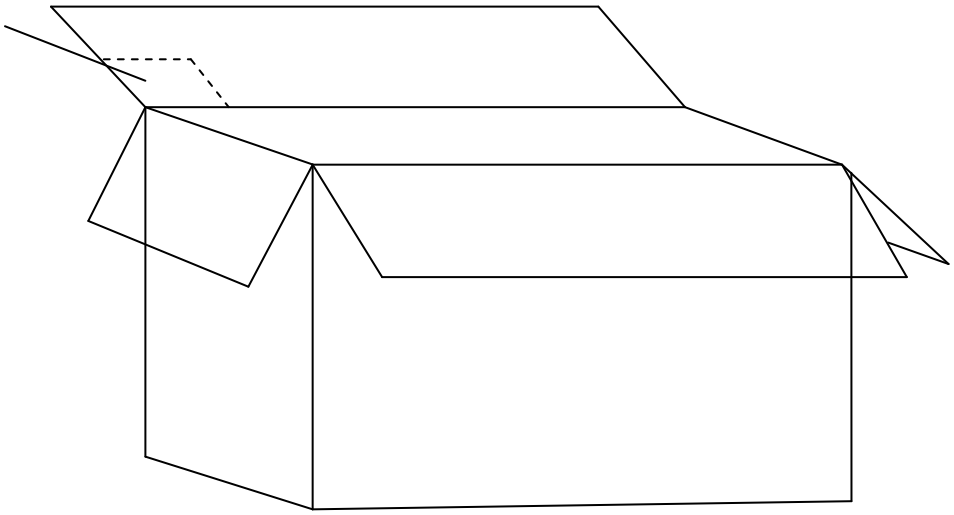


Moisture indicator **Desiccant**



Item	Dimensions	Quantity / Bag
Anti-Static Shielding	250x210x0.15mm	1 Reel / 1000pcs MAX

Label



Item	Dimensions	Quantity / Box
Carton	420x240x230mm	20 Bags (Reels)

Notes:

1. Dimensions are in mm.
2. Normal packing quantity: 1,000pcs / Reel.

Reliability:

Test Items And Results

No.	Test Items	Test Condition	Note	Ac/Re
1	**Life Test**	Ta=25°C, I_F=210mA	1000 Hr	0/1
2	**Soldering Test**	260°C max	2 Times	0/1
3	**Reflow Test**	260°C max	2 Times	0/1
4	**Thermal Shock**	-40°C ~ 100°C	100 Cycles	0/1
5	**Temperature Cycle**	-35°C ~ 75°C	168 Cycles	0/1
6	**High Temperature Storage**	100°C	1000 Hr	0/1
7	**Low Temperature Storage**	-40°C.	1000 Hr	0/1
8	**High Temperature / High Humidity**	85°C,85%RH	1000 Hr	0/1

Notes：

1. Measurement shall be taken after the tested samples have been returned to normal ambient conditions (generally after two hours)；Sample Q'ty is 20 pcs.
2. The LED is made of silicone encapsulation which is soft and prone to mechanical damage. Care must be taken to avoid direct contact pressure to the silicone otherwise the die and bonding wires may subject to damage, or the reliability will be affected. Suitable pick and place nozzle should be used for SMT operation.
3. Appropriate material for coating over LED for any purpose, such as waterproof, must be tested by the customer. Incompatible material may result in color change, or even premature LED failure. Alder will not be held responsible for any such misuse.

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 opening the package, the storage condition of temperature and R.H. are：40°C, 90%R.H. Max.
   2.2 After bag is opened, devices that will be subjected to reflow solder or other high temperature process must(a)Mounted within:8 hours<30°C/60%RH or (b)Stored at <10%RH.
   2.3 If baking is required, devices may be baked for 48hrs at 65°C±5°C.

Notes: These data can only reflect statistical figures and don't necessarily correspond to the actual parameters of each single LED. Product specifications may be modified for improvement without notice.