

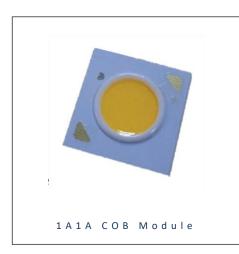


PRODUCT DATASHEET



- COB Module
- ▶ 15.85x15.85x1.65mm
- Warm White 3500K





N0W63M18

APPLICATIONS:

- Commercial Lighting
- Tunnel Light
- Spotlight
- General Lighting



FEATURES:

- Package: Top View COB Light Engine Module
- Forward Current: 330~600mA
- Forward Voltage (typ.): 35.4V
- Luminous Flux (typ.): 1415lm@330mA
- Colour: Warm White
- Colour Temperature (CCT): 3500K
- Viewing Angle: 120°
 - Materials:
 - Die: InGaN
 - Resin: Silicon (Yellow Diffused)
 - Package: MCPCB
- Operating Temperature: -40~+100°C
- Storage Temperature: -40~+120°C
- Grouping Parameters:
 - Forward Voltage
 - Luminous Flux
 - CIE Chromaticity
- MSL Level: 3 according to J-STD020
- Packing: 54pcs/tray; 270pcs/carton





CHARACTERISTICS:

Parameter	Symbol	Ratings	Unit	
DC Forward Current	lf	600	mA	
Power Dissipation	PD	21.72	W	
Junction Temperature *	Tj	125	°C	
Operating Temperature	Topr	-40~+100	°C	
Storage Temperature	Т _{ѕтб}	-40~+120	°C	
Thermal Resistance	R _{thj-sp}	0.6	°C/W	
Colour Dondoring Index (CDI)	R9	min.83		
Colour Rendering Index (CRI)	Ra	min.95		

Absolute Maximum Characteristics (T_a=25°C)

* Rth j-sp is the thermal resistance from LED junction to solder point on MCPCB with electrical power.

Parameter	Symbol	Values			Unit	Test	
Parameter	Symbol	Min.	Тур.	Max.	Onic	Condition	
Forward Voltage	VF	33.0	35.4		V	I⊧=330mA	
Luminous Flux	Φν	1316	1415	1584	lm	I _F =330mA	
Chromaticity Coordinates	х		0.4073			l⊧=330mA	
	Y		0.3917				
Colour Temperature	ССТ		3500		К	I _F =330mA	
Viewing Angle	20 _{1/2}		120		deg	I⊧=330mA	

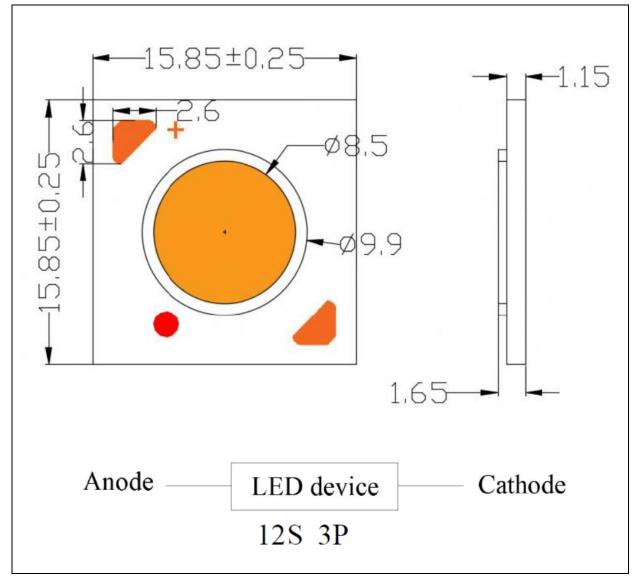
Electrical & Optical Characteristics (T_a=25°C)

1. Luminous flux (Φ_V) ±10%, Forward Voltage (V_F) ±0.1V, CRI ±2



OUTLINE DIMENSION:

Package Dimension:

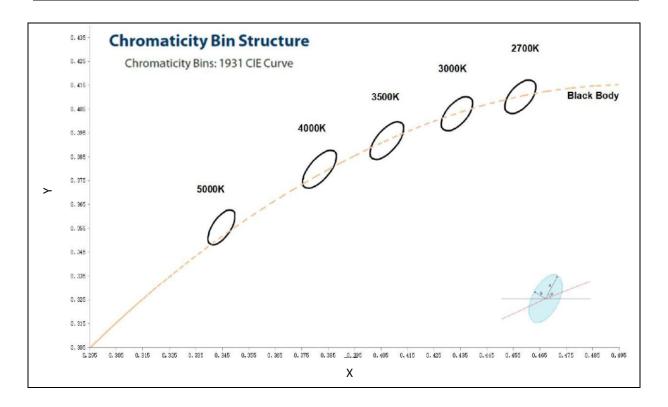


1. All dimensions are in millimetre (mm).

3

2. Tolerance ±0.2mm, unless otherwise noted.





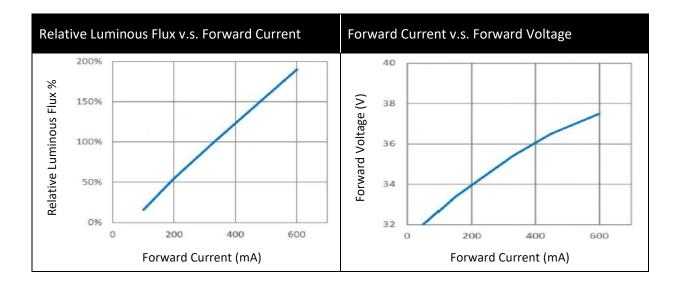
Chromaticity Coordinates Classifications (I_F = 330mA):

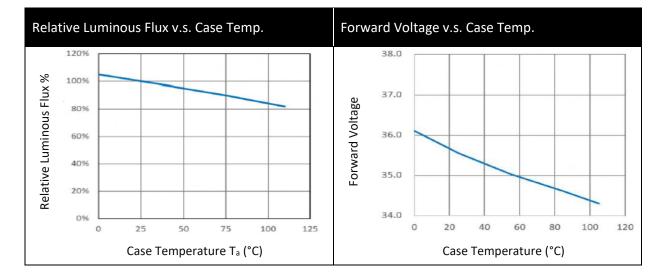
	Code Cent	Centre		Radius		Angle
a		Y	а	b	Φ	
	35M3 (3 STEP)	0.4073	0.3917	0.009270	0.004140	54.00

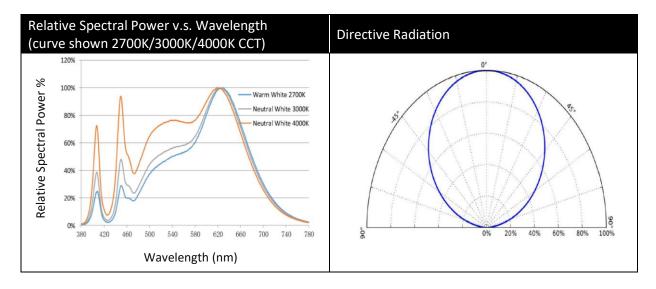
4



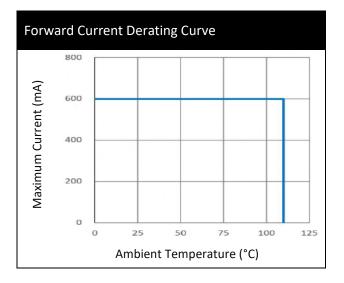
ELECTRO-OPTICAL CHARACTERISTICS:











6

PRECAUTIONS OF USE:



Storage:

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).

Shelf life in sealed bag: 12 months at 5°C~30°C and <60% R.H.

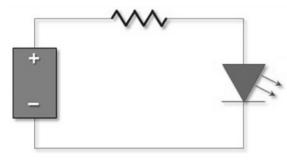
Once the package is opened, the products should be used within a week. Otherwise, they should be kept in a damp-proof box with descanting agent <10% R.H. and apply baking before use.

Thermal Management:

Thermal management is a key factor affecting the life of LEDs. The life span of LEDs will reduce with the increase of junction temperature. Please make sure that the temperature of Tj is lower than 125°C during application.

The silicone casting will begin to degrade at 180°C and shall be crake in a few days. Please avoid silicone surface temperature higher than 180°C.

Testing Circuit:



Must apply resistor(s) for protection (over current proof).

Chemical Corrosion:

COB is packaged with soft silicone. Its design is not waterproof, thus please do not dip the COB into water directly. Please avoid silicone contact with sulfur dioxide, sulfuric acid, concentrated hydrochloric acid, and keep dry and sealed during storage.

ESD (Electrostatic Discharge):

Static Electricity or power surge will damage the LED. Use of a conductive wrist band or anti-electrosatic glove is recommended when handing the LED all time. All devices, equipment, machinery, work tables, and storage racks must be properly grounded.

In the events of manual working in process, make sure the devices are well protected from ESD at any time.



REVISION RECORD:

Version	Date	Summary of Revision
A1.0	25/11/2022	Datasheet set-up.
A1.1	17/04/2025	Update specifications.