
Part No: COB-LINE-(2700-6500K)W6

Product introduction

The series of products which use mirror aluminum for substrate. The products have high brightness, long life, a variety of power, easy installation, general size, which are especially suitable for indoor and outdoor lighting products, etc.



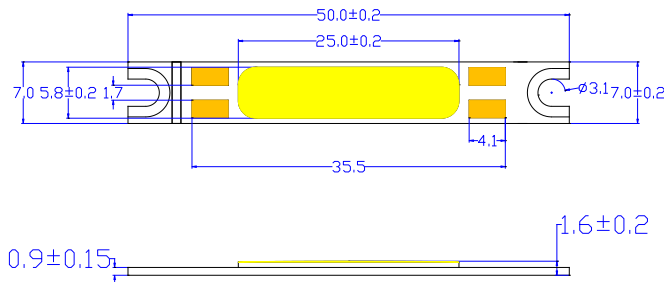
Features:

- ✧ High brightness, high reliability, long life
- ✧ Light angle: 120°
- ✧ Typical color temperature: 6500K/5000K/4000K/3500K/3000K/2700K
- ✧ Ra : 80+
- ✧ Through the LM-80 certification
- ✧ In line with the EU ROHS standard

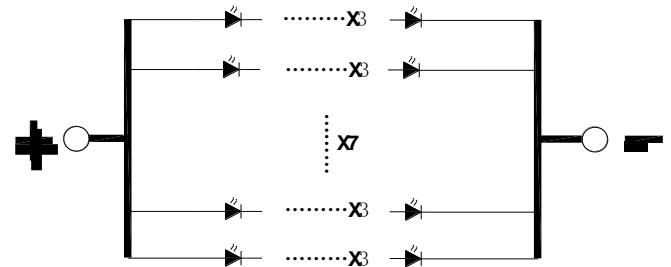
Typical Application

- ✧ Spot Light
- ✧ Bulb
- ✧ Down Light
- ✧ Cornering Lamp
- ✧ Panel Light
- ✧ Street Light

Outline dimensions



Circuit structure



NOTES:

- ✧ All dimensions are millimeter.
- ✧ Tolerance is $\pm 0.3\text{mm}$ unless otherwise noted.
- ✧ It is strongly recommended that the temperature of T_s (Welding plate) is not higher than 100°C .

Limit parameter ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Test Condition	Value		Unit
			Min.	Max.	
DC Forward Current	I_F	----	----	1050	mA
Peak Pulse Current	I_{peak}	Duty=1/10 1kHz	----	1250	mA
Power Dissipation	P_d	----	----	10.3	W
LED Junction Temperature	T_J	----	----	125	$^\circ\text{C}$
Operating Temperature	T_{opr}	----	-40	+85	$^\circ\text{C}$
Storage Temperature	T_{str}	----	-40	+100	$^\circ\text{C}$
ESD Sensitivity	----	HBM	8000	----	V
Soldering Temperature	----	----	300 $^\circ\text{C}$ for 5 Seconds max		

Photoelectric parameters (Ta = 25°C)

ANSI	Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
2700K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			735		lm
	Color Temperature	CCT		2650	2725	2800	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		°C/W
3000K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			805		lm
	Color Temperature	CCT		2970	3045	3120	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		°C/W
3500K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			840		lm
	Color Temperature	CCT		3350	3465	3580	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		°C/W
4000K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			875		lm
	Color Temperature	CCT		3850	3985	4125	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		°C/W
5000K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			910		lm
	Color Temperature	CCT		4850	5030	5210	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		°C/W
6500K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			945		lm
	Color Temperature	CCT		6190	6530	6910	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		°C/W

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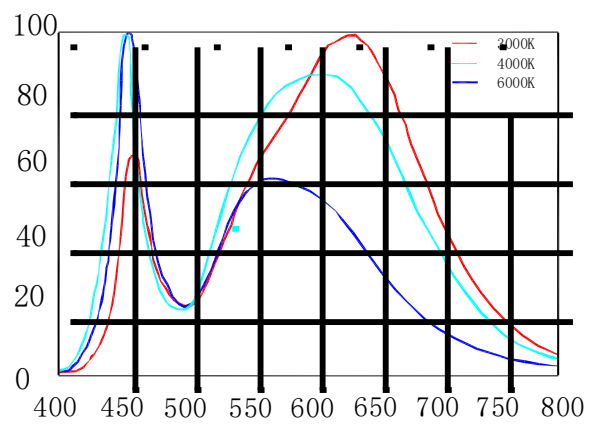
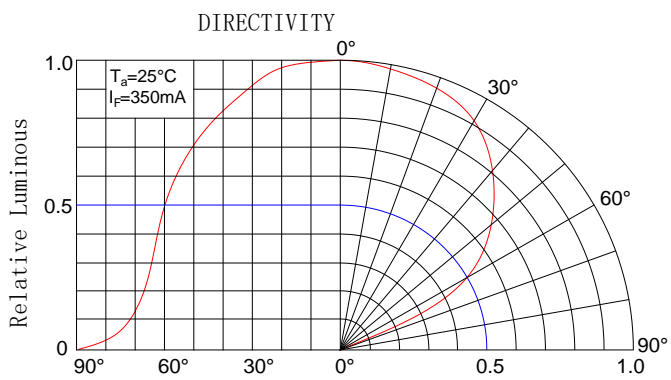
IEC	Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
2700K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			735		lm
	Color Temperature	CCT		2650	2725	2800	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		$^{\circ}\text{C}/\text{W}$
3000K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			805		lm
	Color Temperature	CCT		2853	2939	3030	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		$^{\circ}\text{C}/\text{W}$
3500K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			840		lm
	Color Temperature	CCT		3340	3450	3560	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		$^{\circ}\text{C}/\text{W}$
4000K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			875		lm
	Color Temperature	CCT		3850	3985	4125	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		$^{\circ}\text{C}/\text{W}$
5000K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			910		lm
	Color Temperature	CCT		4820	5000	5180	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		$^{\circ}\text{C}/\text{W}$
6500K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			945		lm
	Color Temperature	CCT		6190	6530	6910	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		$^{\circ}\text{C}/\text{W}$

6000K	Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
6000K	Forward Voltage	V_F	$I_F = 700\text{mA}$		9		V
	Luminous Flux	Φ_v			945		lm
	Color Temperature	CCT		5720	6000	6350	K
	Color Rendening	R_a		80			
	Thermal Resistance	R_J			3.9		$^{\circ}\text{C}/\text{W}$

Typical curves:

Fig.1 Forward Current (mA) Vs Forward Voltage (V)

Fig.2 Relative Intensity Vs Forward Current (mA)



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Test	Test Conditions	Test Duration	Units Failed/Tested
Temperature Cycle	-40°C (30min)~25°C (5min)~100°C(30min)~25°C (5min)or -40°C (30min) ~ 100°C (30min)	100cycles	0/10
High Temperature Storage	T _A =100°C	1000hours	0/10
High Temperature Humidity Storage	T _A =85°C RH=90%	1000hours	0/10
Low Temperature Storage	T _A =-40°C	1000hours	0/10
High Temperature Operating Life	TC=85°C I _F =1050mA	1000hours	0/10
Electrostatic Discharges	HBM 8KV 3K Ω 100Pf 3pulses negative		0/10
Temperature Cycle *1	-40°C (30min)~ (90s)~110°C (30min) ~ (90s) -40°C	300cycles	0/10
Temperature Humidity Storage*2	T _A =85°C RH=85% I _F =700mA	1000hours	0/10

NOTES:

* Measurements are performed after allowing the LEDs to return to room temperature
Failure Criteria

Items	Conditions	Failure Criteria
Forward Voltage (VF)	I _F =700mA	>Initial value x 1.1
Luminous Flux (ΦV)	I _F =700mA	<Initial value x 0.7

Code	Colour temperature
W27	2700K
W30	3000K
W35	3500K
W40	4000K
W50	5000K
W60	6000K
W65	6500K