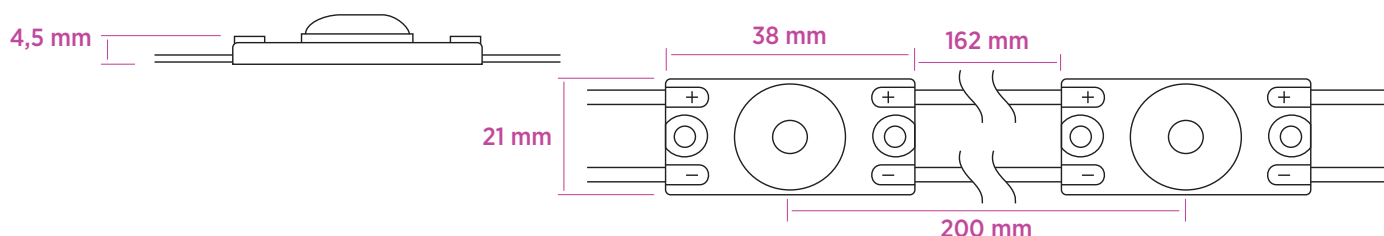




Feature:

- 95% transmittance lens, Wide view angle 170°
- Bright illumination with fewer modules
- Constant Current Technology, 20 pcs per series
- The exposed Aluminum plate for heat dissipation
- Injection molding process, Waterproof: IP65
- Energy saving. Environment friendly
- Long life span
- Suitable for 3-8cm height channel letters and light boxes backlighting etc.

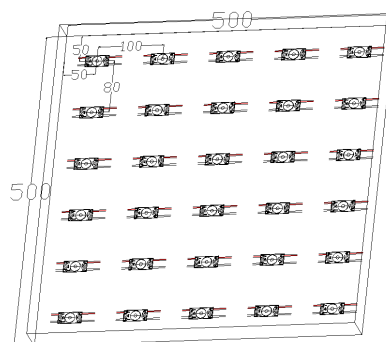
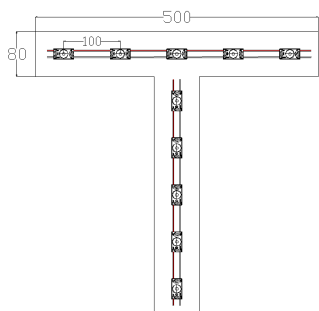
Dimensions:



Channel letter (instruction) / Single light box (instruction)

Height: 40mm

Height: 35-40 mm



Typical optical characteristics curves:

CCT.:CCT=7509K Dominant: d=485.4nm Barycenter: b=535nm Peak Wavelength: p=448.1nm
FWHM: 20.22nm Purity:Pe=13.02% Red Ratio:R=0.112 Green Ratio:G=0.845 Blue Ratio:B=0.044
Color CRI.:Ra=72.64
R 1=71 R 2=75 R 3=76 R 4=74 R 5=72 R 6=67 R 7=82
R 8=64 R 9=-26 R10=39 R11=72 R12=41 R13=71 R14=87
R15=67

Luminosity Parameter

Luminous Flux(380-780nm):101.577lm Optical Power(380-780nm):0.324W Efficient(380-780nm):99.59lm/W

Electric Parameter

Voltage: U=12V Current: I=85mA Power: P=1.02W PF: PF=1

Device State

Wavelength Range: 380nm-780nm Wavelength Interval: 1nm

Rules of Naming Products:

Model	Color	Operation Voltage	Rated Current	Rated Power	Beam Angle	Luminous Flux	CCT	Working Temp.	IP Rank
1SMD170SX	White	DC12V	85mA	1W	170°	90-100lm	2800-11000K	-40°C-80°C	IP 65

Absolute maximum ratings:

Parameter	Symbol	Value	Unit
Power dissipation	Pd	1000	mW
Forward current	If	85	mA
Reverse voltage	Vr	15	V
Operating temperature range	Top	-40 - + 100	°C
Storage temperature range	Tstg	-40 - + 100	°C
Pulse forward current	Ifp	200	mA
Electrostatic discharge	ESD	2000 (HBM)	V
Junction temperature	TJ	85	°C

Reliability:

	Test item	Ref. standard	Test condition	Note	Damaged
environment sequence	Resistance to soldering heat (Reflow Soldering)	JESD22-B106	T _{sld} =260°C, 10sec	2 times	0/22
	Temperature cycle	JESD22-A104	-40 30min ↑ ↓ 5min 100°C 30min	1000 cycle	0/100
	Thermal shock	JESD22-A106	-40 15min ↑ ↓ 100°C 15min	1000 cycle	0/100
	High temperature	JESD22-A103	T _a =100°C	1000 cycle	0/100
	Low temperature	JESD22-A119	T _a =40°C	1000 cycle	0/100
	Power temperature	JESD22-A105	On 5min -40 >15min ↑ ↓ <15min Off 5min 100 >15min	1000 cycle	0/100
	Life test	JESD22-A108	T _a =25°C If=85mA	1000 cycle	0/100
	High humidity heat life test	JESD22-A101	60°C RH=90% If=85mA	1000 cycle	0/100

Affect of T_j on Luminous Maintenance:

