

# Product information

## LED Lighting Modules (280 lm Series)

Status: April 2008

Models: GM5BWC15L02, GM5BDC15L02, GM5BNC15L02, GM5BNC15L12



### [Applications]

Whether Spot or ambient, indoor or outdoor, stationary or mobile – you can set innovative 18 mm<sup>2</sup> standards in the general lighting sector with Sharp's high-performance square LED Lighting Modules:

With the utmost in efficiency and optimum light dispersion as well as maximum service life, you profit from minimised maintenance for your applications:

- General Lighting/Illumination
- Residential Home Lighting (Indoor/Outdoor, Decorative/Functional, Emergency/Safety)
- Commercial Building Lighting/Illumination (e.g. Architectural Lighting, Spot Lighting)
- Public Lighting/Illumination (e.g. Street/Road Lighting, Subway/Train Station Lighting, Bridge Lighting/Illumination)
- Industrial Lighting (e.g. Factory/Storage Lighting, Warehouse Lighting, Security Lighting)

### [Main Features]

- Highest power efficiency of up to 80lm/Watt
- High output of up to 280 lm ( $I_f$  360mA/ $V_f$  10.5V)
- CRI Value up to 90
- Thin /Lightweight / Compact
- Multiple Chip LED with only two terminal connection for ease of installation
- Long Lifetime: 40.000 h @ 80°C operation
- Operating temperature range: - 30 to +90° C
- Four different colour options available in several different binnings

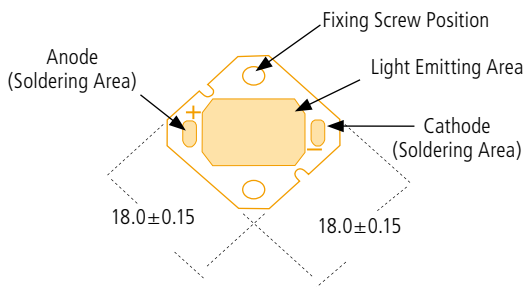
### [Benefits]

- 18 mm x 18 mm squared Module for space efficient array arrangement
- Flat surface ensures direct installation on heat sink and superb thermal dissipation.
- Series/parallel Matrix LED array ensure fail safe operation while offering lowest thermal radiation

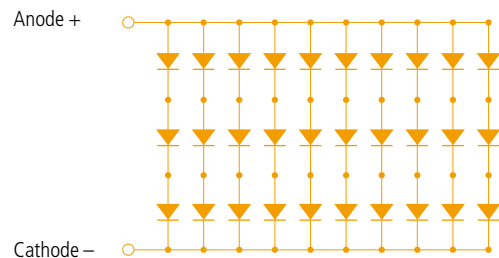
# [Colour Options/Line up LED Lighting Module 280lm Series]

Model Number	LED colour	Colour Temp. [K]	Colour range Coordinates [CIE 1931]		Luminous Flux [lm]	Colour Rendering Index [Typ.]	Luminescence efficiency [lm/W]
			X	Y			
GM5BWC15L02	White	5,000	0.35	0.35	280	60	76
GM5BDC15L02	Light bulb white (Tungsten)	2,800	0.45	0.41	200	69	54
GM5BNC15L02	High colour rendering white	5,000	0.35	0.35	190	90	51
GM5BNC15L12	High colour rendering white	6,500	0.31	0.32	190	89	51

## [Structure]



3 series x 10 parallel = 30 LEDs bare dies



### Cross Section



## [Contact]



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# [LED]