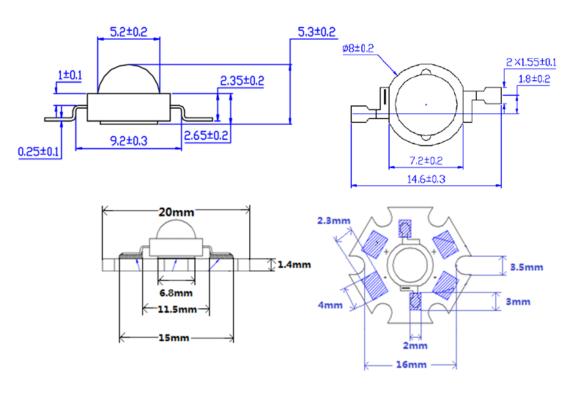


# 3W HIGH POWER LED (Star-6) W081FxMC

| Features   | Applications   |
|--|--|
| * Long operating life                              | * Reading lights (car, bus, aircraft)                |
| * Highest flux                                     | * LCD Backlights/light Guides                        |
| * Available in White:2500K-25000K                  | * Fiber optic alternative/ Decorative Entertainment  |
| * Lambertian radiation pattern                     | * Mini-accent/Up lighters/Down lighters/ Orientation |
| * More energy efficient than incandescent and most | * Indoor/Outdoor commercial and Residential          |
| halogen lamps                                      | Architectural  |
| * Low voltage DC operated                          | * Cove/Under shelf/Task                              |
| * Cool beam, safe to the touch                     | * Bollards/Security/Garden                           |
| * Instant light (less than 100ns )                 | * Portable (flashlight, bicycle)                     |
| * Fully dimmable                                   | * Edge-lit signs (Exit, point of sale)               |
| * No UV  | * Automotive Exit (Stop-Tail-Turn,CHMSL, Mirror      |
|  | Side Repeat)   |
| * Superior ESD protection                          | * Traffic signaling / Beacons / Rail Crossing and    |
|  | Wayside  |
| * Eutectic die bonding                             | * RoHS compliant                                     |

PACKAGE





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| Item                                 | Symbol | Condition          | Min. | Тур. | Max. | Unit  |  |  |  |
|--------------------------------------|--------|--------------------|------|------|------|-------|--|--|--|
| Forward Voltage                      | Vf     | I⊧=800mA           | 3.20 |      | 3.8  | V     |  |  |  |
| Reverse Current                      | lr     | V <sub>R</sub> =5v |      |      | 50   | uA    |  |  |  |
| Viewing Angle                        | 201/2  | I⊧=800mA           | 110  |      | 140  | deg   |  |  |  |
| Luminous Intensity                   | φV     | l⊧=800mA           | 168  |      |      | Im    |  |  |  |
| Chromaticity                         | Тс     | l⊧=800mA           | 6000 |      | 7000 | К     |  |  |  |
| Thermal Resistance, Junction to Case | Rjp    | l⊧=800mA           |      | 10   |      | °C ⁄w |  |  |  |

## Typical Optical/ Electrical Characteristics @TJ=25°C

### Notes:

- 1. Tolerance of measurement of forward voltage±0.1V.
- 2. Tolerance of measurement of peak Wavelength±2.0nm.
- 3. Tolerance of measurement of luminous intensity±15%.

### **Absolute Maximum Rating**

| Item                  | Symbol      | ymbol Absolute Maximum Rating |      |  |
|-----------------------|-------------|-------------------------------|------|--|
| nem                   | Symbol      |                               | Unit |  |
| Peak Forward Current* | <b>I</b> FP | 1000                          | mA   |  |
| Operation Temperature | Topr        | -30~+60                       | S°   |  |
| Storage Temperature   | Tstg        | -40~+90                       | S°   |  |
| Lead Soldering        | Tso∟        | Max. 230°C for 5sec Max.      |      |  |
| Temperature*          | I SOL       |                               |      |  |

\*IFP Conditions : Pulse Width≤10msec duty≤1/10

\* All high power emitter LED products mounted on aluminum metal-core printed circuit board, can be lighted directly, but we do not recommend lighting the high power products for more than 5 seconds without a appropriate heat dissipation equipment.

\* Re-flow, wave peak and soak- stannum soldering etc.is not suitable for this products.

\* Suggest to solder it by professional high power LED soldering machine.

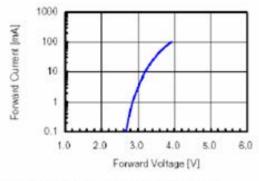
\* Can use invariable-temperature searing-iron with soldering condition:≤260 degree less than 3 seconds.



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## **Electrical/Optical Characteristics Curves**

#### Fig 1. Forward Current vs. Forward Voltage



#### Fig 3. Forward Voltage vs. Temperature

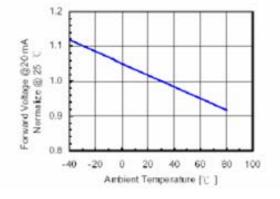


Fig 2. Relative Intensity vs. Forward Current

