

**Features & Benefits**



- Constant current design
- Patented “sandwich” design uses customer-supplied heatsink and integral mechanical and electrical interfaces to eliminate wiring harness
- Patented intelligent thermal design uses metal core board (MCPCB)
- Includes mounting holes for mechanical attachment and pre-wired leads
- Easily configured into existing and new luminaires
- Available in a variety of color temperatures
- Can be used to meet the requirements of CA Title 24, ENERGY STAR® and other green initiatives

**Required Brillia LED Drivers**

AI1220-0..... See Brillia LED driver specifications

**Ratings and Performance Specifications**

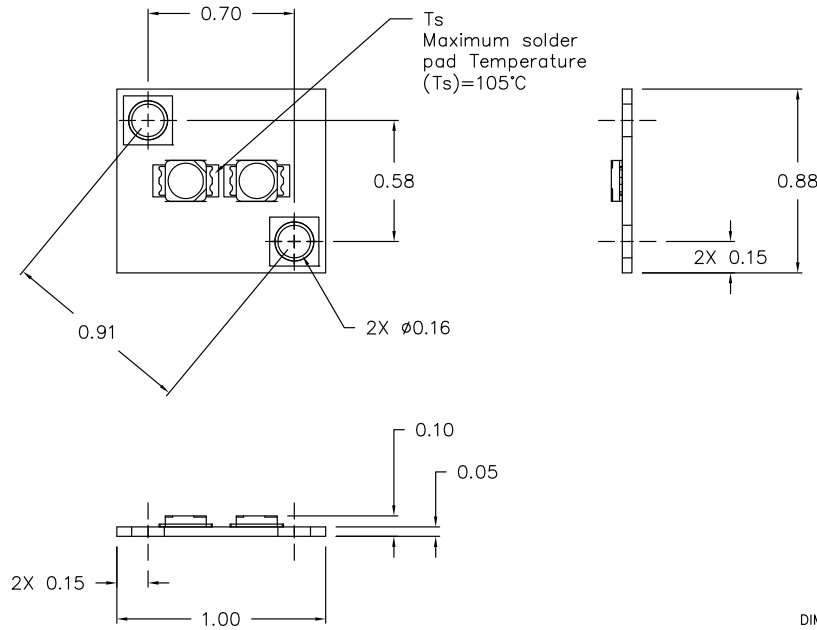
Nominal DC Power Consumption @ 350mA DC .....	2.2W
Maximum Input Requirements.....	350mA DC
Maximum Operating Range Ambient Temperature (Ta) .....	-40 to +50 °C
Maximum Solder Pad Temperature (Ts) .....	+105 °C
Maximum Screw Installation Torque.....	50 inch-ounces
Estimated Lumen Depreciation (LM80 standard) .....	70% of initial lumens (L <sub>70</sub> ) at 40,000 hours
Maximum Weight .....	2 grams
Safety/Compliance	
UL Class 2 Recognized Component E321468	
RoHs compliant	

**Application Notes**

1. The use of any washer (lock, flat, etc.) with the specified truss head screw will void the warranty due to possible damage and/or shorting to the circuit board.
2. This “sandwich style” LED module makes electrical and mechanical connection with Brillia LED drivers by 4-40 x 3/8” truss head screws and isolation bushings. The screw heads must be a minimum diameter of 0.250” in order to seat properly on the module and not damage the contacts. Brillia recommends the use of an aluminum or equivalent heatsink “sandwiched” between the LED module and driver with a nominal thickness of 0.080”. For thicker heatsinks, longer screws can be used, however caution must be used not to bottom-out and damage the internal PC board of the driver. The isolation bushings must be McMaster Carr 91145A129 or Brillia PC61-0002 or equivalent dimensions and material.
3. The proper LED Solder Pad Temperature (Ts) is critical to ensure long life. Careful design consideration required for factors such as ambient conditions (for example weather and surrounding atmosphere inside exterior luminaires) and proximity to other heat sources such as other LED modules and heat generating LED drivers.
4. Abnormal operating conditions such as high humidity or elevated operating temperatures can be expected to negatively impact lumen output, product lifetime, or product performance.



**Physical Dimensions**



DIMENSIONS ARE IN INCHES  
TOLERANCES:  
X.XX = ± 0.01 ANGLE = ±30'  
X.XXX = ± 0.005

Part Number	Nichia NS3x183-H3 LED Package Bin	Nominal Values CCT Color Temp. (Kelvin)	Sample Values Light Output <sup>[2]</sup> (Lumens)	Sample Values Efficacy <sup>[2]</sup> (LPW)	Sample Values CRI <sup>[1]</sup>	Nominal Beam Angle (Degrees)
BB02BG-20031-0000XX-01	SW27	2700	135	61	80	120
BB02BG-21031-0000XX-01	SW35	3500	160	73	80	120
BB02BG-C0031-0000XX-01	C1/C2	5100	180	82	70	120

<sup>1</sup>Higher CRI available by special order

<sup>2</sup>Sample value when used with compatible Brillia LED driver and sample heatsink

**Options: sales@brillialed.com**

Other LED colors or LED manufacturers available .....please email sales@brillialed.com

**Packaging**

Modules are marked with abbreviated SKU and lot traceability information on non-LED side of module. Modules are sold 104 per panel (sheet form) and packaged in ESD bags with SKU and lot traceability information.

**Warranty**

3 Year limited warranty in accordance with Brillia published warranty. Product must be used with compatible Brillia components (modules, drivers, engines and/or accessories) and no maximum ratings (such as Ts) shall be exceeded during any expected operating conditions of the system.

**Additional Information**