

**Features & Benefits**

- Constant voltage design
- Patent pending Thermadjust™ temperature compensation technology and reverse polarity protection
- Protective conformal (transparent) coating
- Patented intelligent thermal design uses FR4 core board with metal vias
- Includes high performance adhesive transfer tape
- 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**

100-12DC-B Series ..... See Brillia LED driver specifications

**Ratings and Performance Specifications**

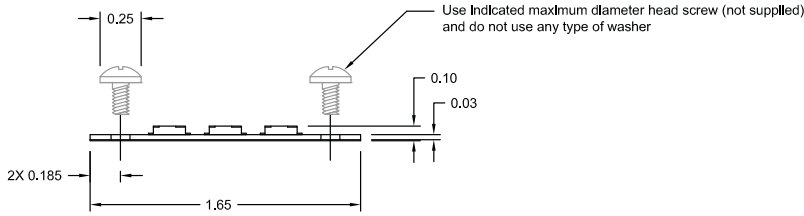
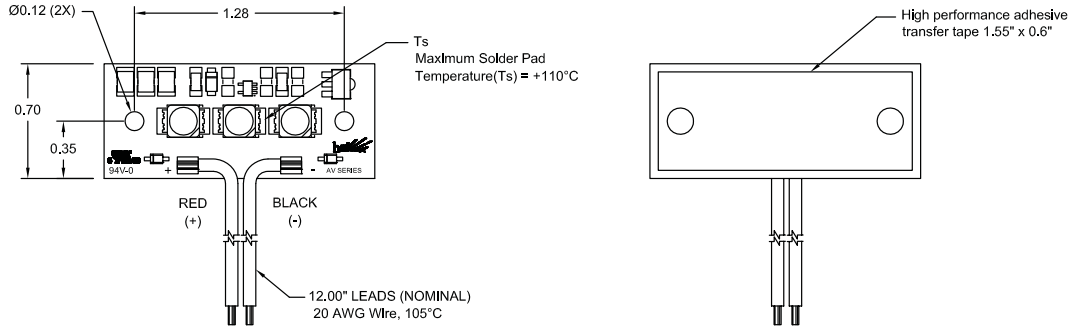
Nominal DC Power Consumption @ 12Vdc .....	3.6W
Maximum Input Requirements.....	12.3Vdc
Maximum Operating Range Ambient Temperature (Ta) .....	-40 to +60°C
Maximum Solder Pad Temperature (Ts) .....	+105°C
Maximum Screw Installation Torque.....	50 inch-ounces
Estimated Lumen Depreciation (LM80 standard) .....	70% of initial lumens (L <sub>70</sub> ) at 40,000 hours
Maximum Weight .....	10 grams
Safety/Compliance	
UL Class 2 Recognized Component E321468	
RoHs compliant	

**Engineering Notes**

1. Thermadjust™ technology automatically reduces the LED current to maintain optimum Junction Temperature (Tj) at any elevated ambient temperature for longer life.
2. 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.
3. The best thermal system performance is achieved by utilizing thermally conductive material between the module and heatsink. For FR4 core boards, this may be critical to provide additional dielectric isolation (voltage protection) from burs and/or irregularities on the heatsink which could penetrate the solder mask.
4. 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.
5. 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"  
X.XXX = ± 0.005"

Part Number	Nichia 083B LED Package Bin	Nominal Values CCT Color Temp. (Kelvin)	Sample Values Light Output (Lumens)	Sample Values Efficacy (LPW)	Sample Values CRI <sup>[1]</sup>	Nominal Beam Angle (Degrees)
BB03AV-20201-120020-01	SW27	2700	191	53	70	120
BB03AV-21201-120020-01	SW35	3500	225 <sup>[2]</sup>	62.5 <sup>[2]</sup>	72 <sup>[2]</sup>	120
BB03AV-C0201-120020-01	C1/C2	5100	270	75	68	120

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

<sup>[2]</sup>Actual sample values of Light Engine tested to LM79 with Brillia LED Driver Series (120V) and sample heatsink

## Options: sales@brillialed.com

Other LED colors or LED manufacturers .....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 70 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