

Features & Benefits

- Constant voltage design
- Patent pending Thermadjust™ temperature compensation technology
- Patented intelligent thermal design uses FR4 core board with metal vias
- Includes mounting holes and high performance adhesive transfer tape for mechanical attachment
- Reverse polarity protection and pre-wired leads
- Protective conformal (transparent) coating
- 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

Any Brillia 12V Constant Voltage Driver..... See Brillia LED driver specifications

Ratings and Performance Specifications

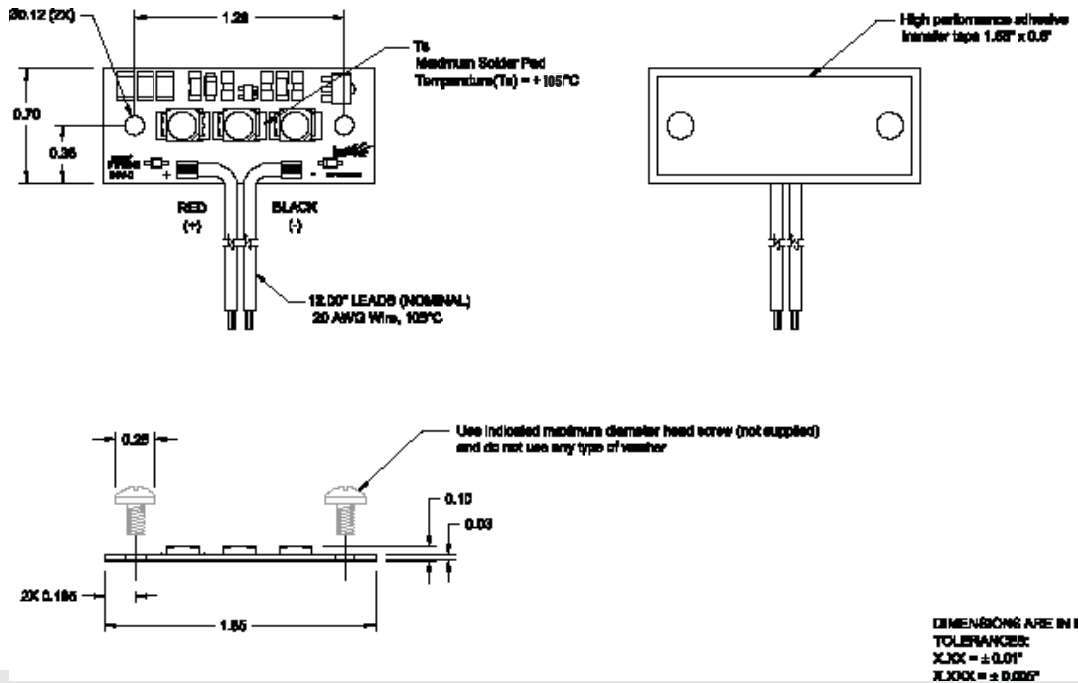
Nominal DC Power Consumption @ 12VDC.....	4.2W(350ma),3.6W(300mA)
Maximum Input Requirements.....	12.3VDC
Maximum Operating Range Ambient Temperature (Ta)	-40 to +50 °C
Maximum Solder Pad Temperature (Ts)	+105 °C
Maximum Screw Installation Torque.....	50 inch-ounces
Estimated Lumen Depreciation (LM80 standard)	70% of initial lumens (L ₇₀) at 40,000 hours
Maximum Weight	10 grams
Safety/Compliance	
UL Class 2 Recognized Component E321468	
RoHs compliant	

Application Notes

1. Thermadjust™ technology automatically reduces the LED current to maintain maximum rated Solder Pad Temperature (Ts). This ensures longer lifetime and is ideal for outdoor luminaires which can reach excessive ambient temperatures illuminated during conditions such as summer daylight hours.
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 the supplied high performance adhesive transfer tape between the module and heat sink. 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. 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:
 XXX = ± 0.01"
 XXXX = ± 0.005"

Part Number	Current (nominal)	Wattage (nominal)	Nichia NS3x183 LED Package Bin	Nominal Values CCT Color Temp. (Kelvin)	Sample Values Light Output ^[2] (Lumens)	Sample Values Efficacy ^[2] (LPW)	Sample Values CRI ^[4]	Nominal Beam Angle (Degrees)
BB03BA-20031-120020-01	350mA	4.2W	SW27	2700	210	50	80	120
BB03BA-21031-120020-01	350mA	4.2W	SW35	3500	250	60	80	120
BB03BA-C0031-120020-01	350mA	4.2W	C1/C2	5100	280	67	70	120
BB03BA-20031-120020-02	300mA	3.6W	SW27	2700	191	53	80	120
BB03BA-21031-120020-02	300mA	3.6W	SW35	3500	225	63	80	120
BB03BA-C0031-120020-02	300mA	3.6W	C1/C2	5100	270	75	70	120

^[1]Higher CRI available by special order.
^[2]Sample value when used with compatible Brillia LED driver and sample heatsink
^[3]Amber colors for turtle areas available by special order.

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 in groups of 5 units and packaged in ESD box 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.

Permlight Products Inc. holds the following United States patents of which one or more may be applicable to the design and/or manufacture of this product. Additional granted patents, patents pending and other intellectual property protection rights may apply to this product.

United States Patents: 6712486, 6578986, 6846093, 7114831, 7306353, 7108396, 7387406, 7595740
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