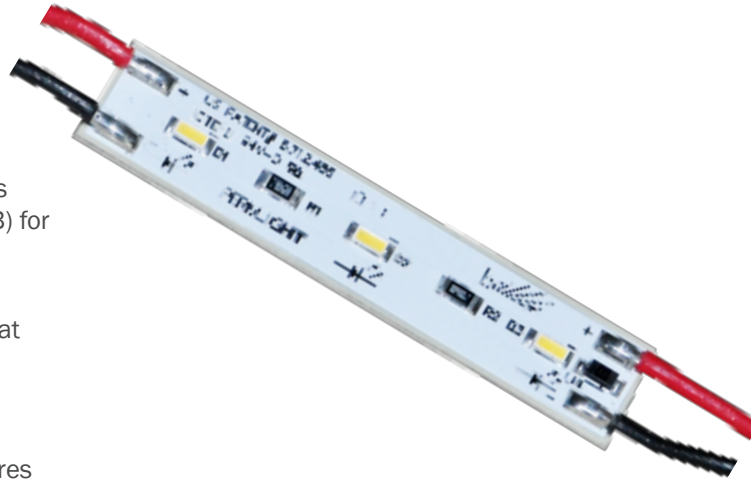


Features & Benefits

- Constant voltage design for flexible application
- Protective transparent coating
- Patented intelligent thermal design uses metal core printed circuit board (MCPCB) for better heat transfer
- Includes pre-wired leads
- Includes high performance adhesive heat transfer tape
- 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	1.5W
Maximum Input Requirements.....	12.3VDC
Maximum Operating Range Ambient Temperature (Ta)	-40 to +50 °C
Maximum Solder Pad Temperature (Ts)	+105 °C
Estimated Lumen Depreciation (LM80 standard)	70% of initial lumens (L ₇₀) at 40,000 hours
Maximum Weight	8 grams
Safety/Compliance	
Regulatory approvals.....	E321468

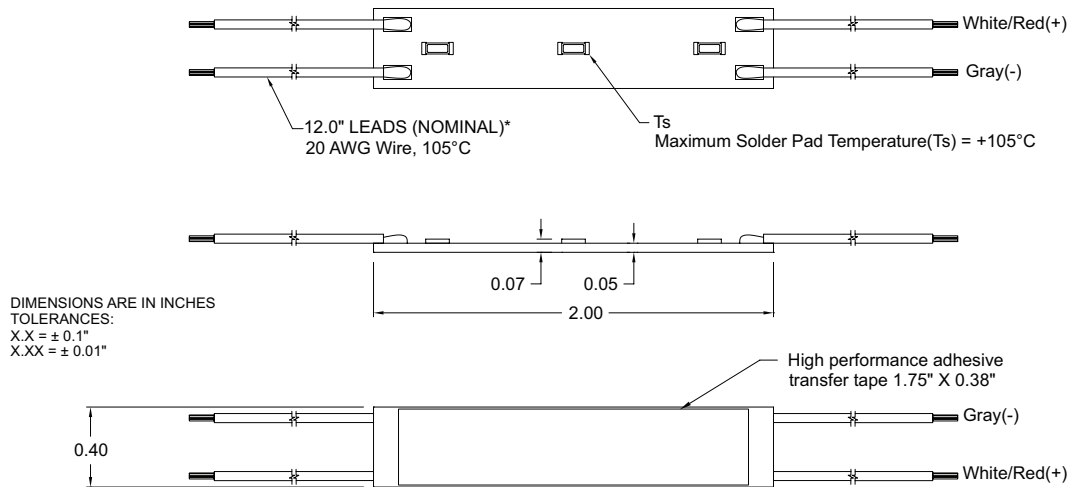
Application Notes

1. The best thermal system performance is achieved by utilizing the supplied adhesive transfer tape between the LED module and the heatsink.
2. The proper LED Solder Pad Temperature (Ts) is critical to ensure long life. Careful design consideration is 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.
3. Abnormal operating conditions such as high humidity or elevated operating temperatures can be expected to negatively impact lumen output, product lifetime, or product performance.

BB03 CZ Series

LED Module

Physical Dimensions



*Other lead lengths available upon request.

Part Number	LED Package Bin	Correlated Color Temp. ^[1] (Kelvin)	Light Output ^[1] (Lumens)	Efficacy ^[1] (Lumens per Watt)	CRI ^[1]	Beam Angle (Degrees)
BB03CZ-20131-120020-01	SW27	2700	90	60	85	120
BB03CZ-27131-120020-01	SW30	3000	100	67	85	120
BB03CZ-21131-120020-01	SW35	3500	100	67	85	120
BB03CZ-22131-120020-01	SW40	4000	110	73	85	120
BB03CZ-C0101-120020-01	C1/C2	5100	125	83	68	120

¹Nominal value when used with compatible Brillia LED driver and proper heatsink

Options

Other LED colors available please email sales@permlight.com

Packaging

Modules are marked with abbreviated SKU and lot traceability information on non-LED side of module. Modules are sold in groups of 56 units and packaged in ESD bags with SKU and lot traceability information.

Warranty

3 Year limited warranty in accordance with Brillia published warranty at www.BrilliaLED.com. 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, 7102172, 7108396, 7329024, 7387406, 7582911, 7582911, 7649327