

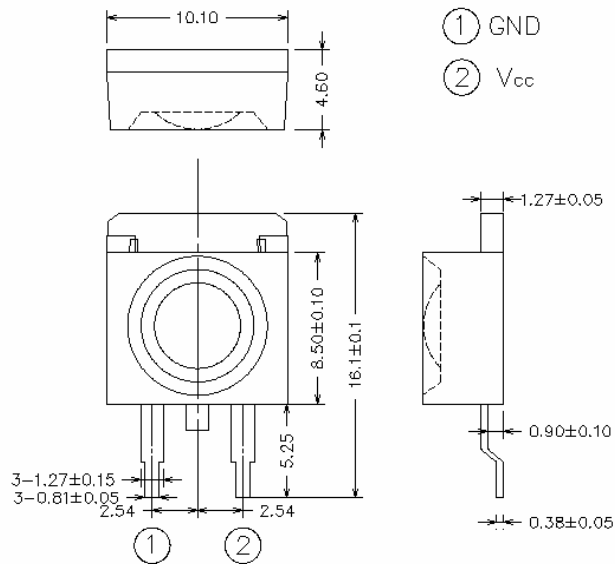
BriLux 1W Light Source

BTP-183XXCQ-XX-XX



[Note 1]

Package Dimension



Tolerance: ± see spec Unit: mm

Features

- Highest Lumen Per Watt
- Long Operational Life
- More Energy Efficient
- IC Compatible
- Low DC Voltage
- Superior ESD Protection
- Smallest Footprint

Applications

- Accent Lighting
- Automotive Exterior/Interior Light
- High Power Back Light
- Reading Light
- Marine/Miner's Lighting
- Portable Lighting

Optical Characteristics at T_a=25°C, I_F=300mA

PART NUMBER	LED CHIP	Lens Color	Wavelength/CCT Range (nm/K)		Drive Voltage	Luminous Flux @300mA(lm)	VIEW ANGLE 2θ _{1/2} (deg)
	MATERIAL		Min/Max	Typ.	Typ.		
BTP-183BLCQ-XX-08	AllnGaN	Water Clear	460~475		3.40V	8 lm	60
BTP-183GBCQ-XX-08	AllnGaN	Water Clear	475~485		3.40V	8 lm	60
BTP-183WHCQ-XX-20	AllnGaN	Water Clear	5000K	8000K	3.40V	20 lm	60

Note:

1) Picture for illustration purpose only. Please refer to outline dimension for actual package size.



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Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	White/Blue
DC Forward Current (mA) ^[1]	300
Peak Pulsed Forward Current (mA)	500
Average Forward Current (mA)	300
Reverse Voltage (V)	5
LED Junction Temperature ($^\circ\text{C}$) ^[3]	120
Thermal Resistance without heatsink ($^\circ\text{C}/\text{W}$)	80
Storage Temperature ($^\circ\text{C}$)	-20 to +80
Operating Temperature ($^\circ\text{C}$)	-10 to +70

Application Notes:

1. Proper forward current must be observed to maintain the junction temperature below maximum rating
2. Although all products listed are class one ESD protection (+/- 1KV by HBM mode), care must be fully taken when handling products
3. Specification is subjected to change without notice.



WARNING

This range of LEDs is produced with die having a high radiant flux. Care must be taken when viewing the product at close range as the light may be intense enough to cause damage to the human eye.

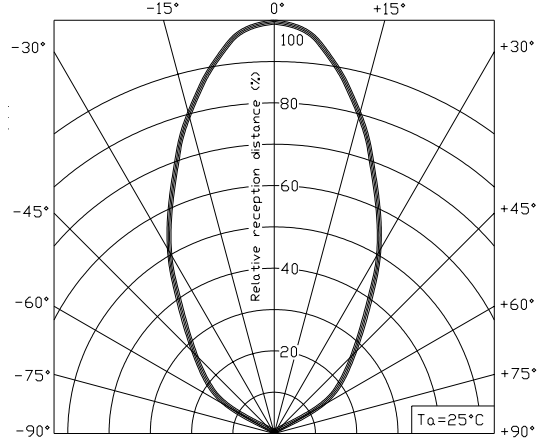
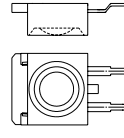
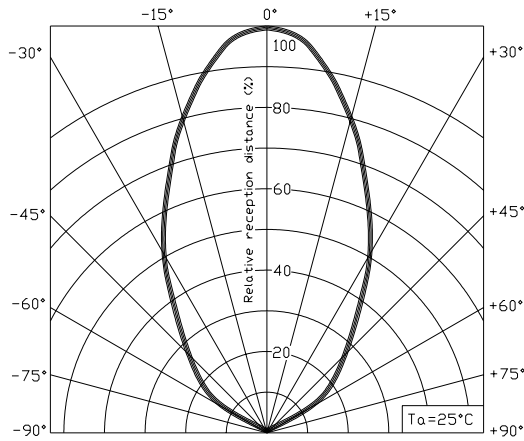
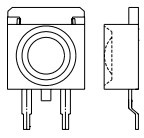
Note: Industry standard procedures regarding static must be observed when handling this product.



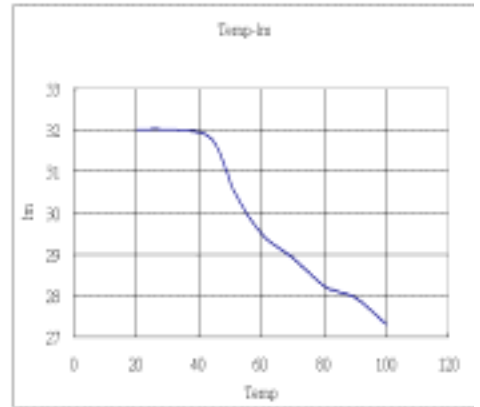
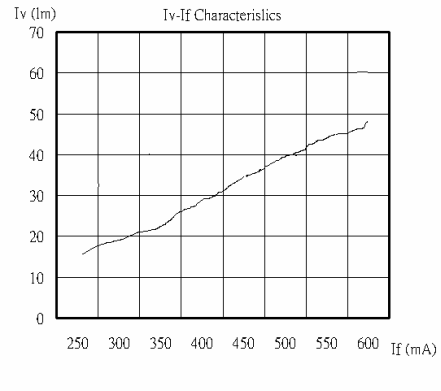
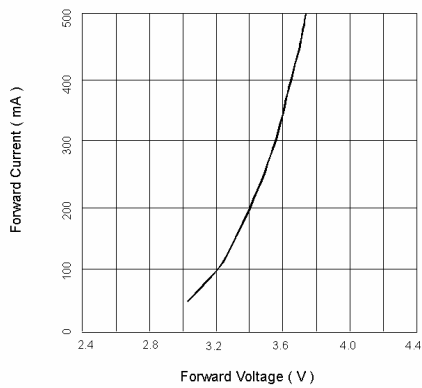
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Typical Electro-Optical Characteristics Curves at $T_a=25^\circ\text{C}$

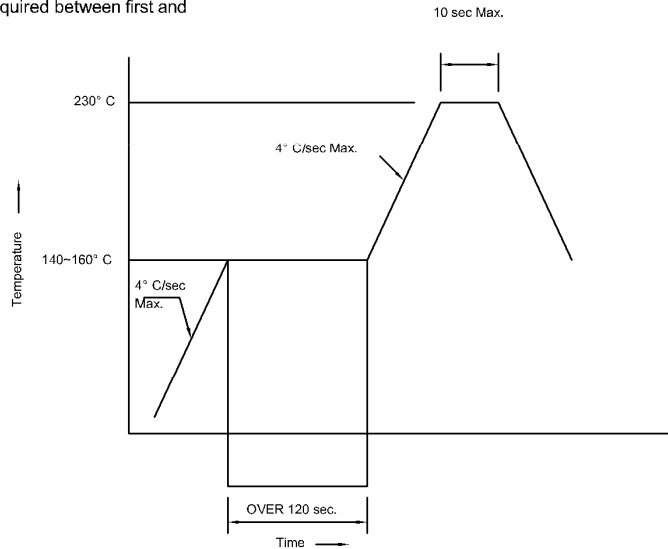


Forward Voltage vs. Forward Current



SMT Reflow Soldering Instruction

Number of reflow process shall be less than 2times and cooling process to normal temperature is required between first and second soldering process.



Note: The recommended maximum reflow temperature is less than 220°C

Recommended Soldering Pattern

