PRELIMINARY SPEC

Part Number: WP7678C2PBC/Z

# Technical Data

**ATTENTION**
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

**Description**

Static electricity and surge damage the LEDS. It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.
All devices, equipment and machinery must be electrically grounded.

**Features:**

* High Luminance output.
* Design for High Current Operation.
* Uniform Color.
* Low Power Consumption.
* Low Thermal Resistance.
* Low Profile.
* Packaged in tubes for use with automatic insertion equipment.
* Soldering methods: Wave soldering .
* RoHS Compliant.

**Benefits:**

*Outstanding Material Efficiency.

*Electricity savings.

*Maintenance savings.

*Reliable and Rugged.

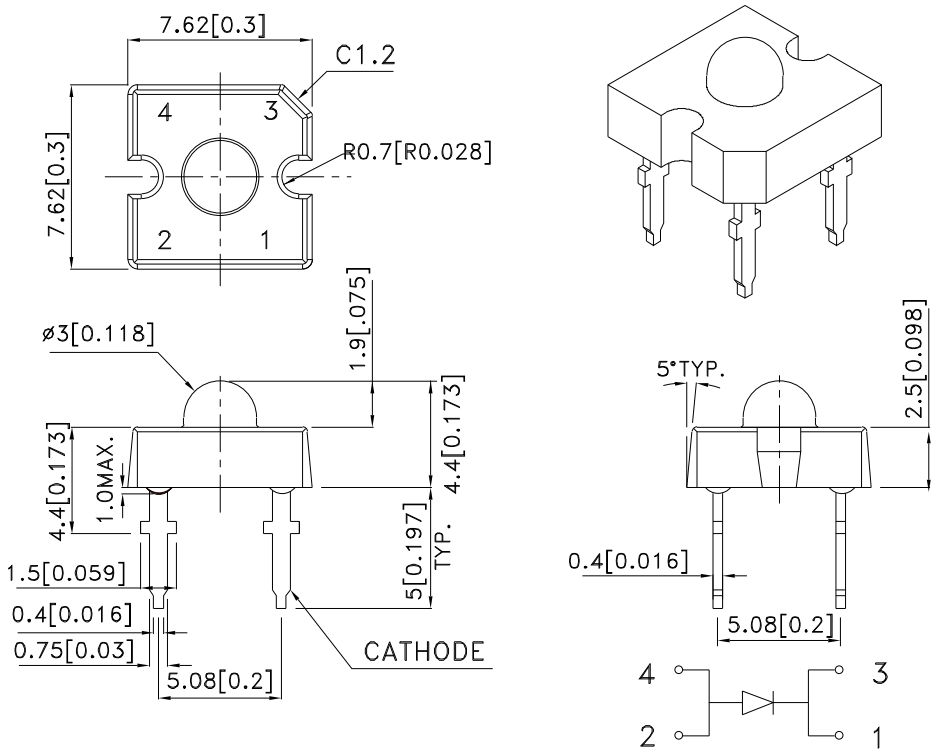
**Typical Applications:**

*Automotive Exterior Lighting.

*Electronic Signs and Signals.

*Specialty Lighting.

# Outline Drawings




Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

### Absolute Maximum Ratings at TA=25°C

| PARAMETER | PB/Z | UNITS |
|---|---|---|
| DC Forward Current | 50 | mA |
| Power dissipation | 210 | mW |
| Reverse Voltage | 5 | V |
| Operating Temperature | -40 To +85 | ˚C |
| Storage Temperature | -55 To +85 | ˚C |
| Lead Solder Temperature[1] | 260°C For 5 Seconds | |

1.1.5mm[0.06inch]below seating plane.
NO Reflow soldering .

## Selection Guide

| Part No. | LED COLOR | Iv(cd)[1] @50mA Min. | Iv(cd)[1] @50mA Typ. | Φv(lm)[1] @50mA Typ. | Viewing Angle[2] 2θ1/2 Typ. |
|---|---|---|---|---|---|
| WP7678C2PBC/Z | Blue (InGaN) | 3.3 | 7 | 2.6 | 30° |

Notes:
1.Luminous intensity is measured with an integrating sphere after the device has stabilized; Luminous Intensity / luminous flux: +/-15%.
2.θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

## Optical Characteristics at TA=25°C
## $I_F$=50mA Rθj-a=200°C/W

| DEVICE TYPE | PEAK WAVELENGTH λPEAK (nm) TYP. | DOMINANT[1] WAVELENGTH λDOM (nm) TYP. | SPECTRAL LINE WAVELENGTH Δλ1/2(nm) TYP. |
|---|---|---|---|
| PB/Z | 458 | 465 | 22 |

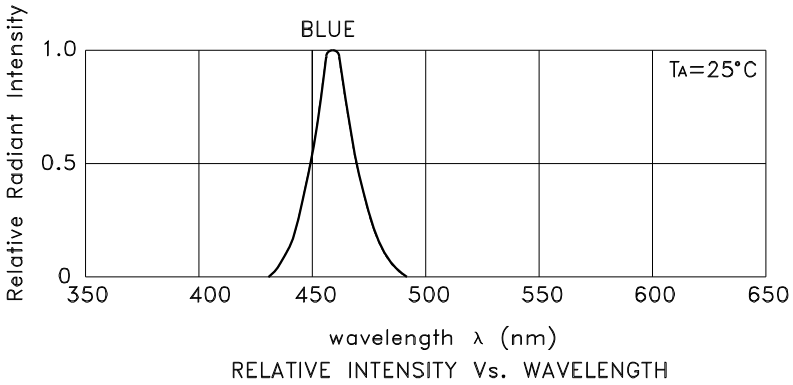
Note:
1.The dominant wavelength is derived from the CIE Chromaticity Diagram and represents the perceived color of the device; Wavelength: +/-1nm.

## Electrical Characteristics at TA=25°C

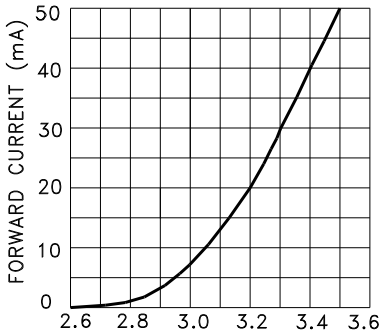
| DEVICE TYPE | FORWARD VOLTAGE [1] $V_F$ (VOLTS) @ $I_F$=50mA TYP. | FORWARD VOLTAGE [1] $V_F$ (VOLTS) @ $I_F$=50mA MAX. | REVERSE CURRENT $I_R$ (uA) @ $V_R$=5V MAX. | CAPACITANCE C (pF) @ $V_F$=0V F=1MHZ TYP. | THERMAL RESISTANCE Rθj -pin °C/W TYP. |
|---|---|---|---|---|---|
| PB/Z | 3.5 | 4.2 | 10 | 110 | 130 |

Note:
1. Forward Voltage: +/-0.1V.

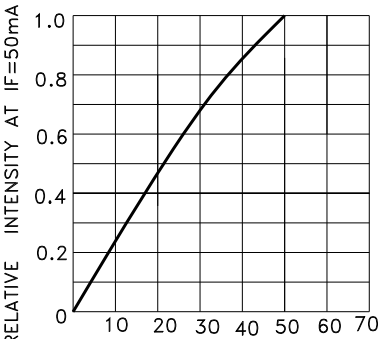
## Figures



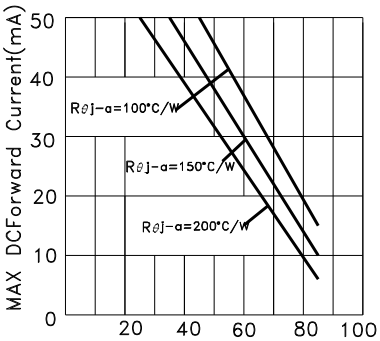
RELATIVE INTENSITY Vs. WAVELENGTH



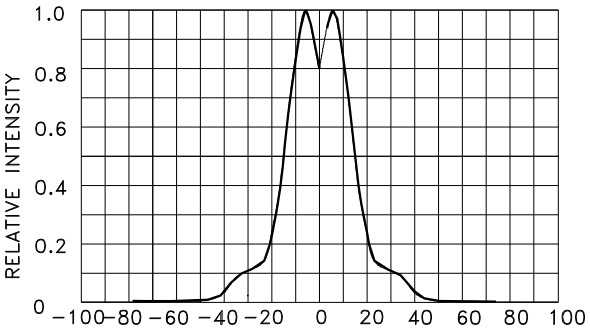
FORWARD CURRENT Vs.
FORWARD VOLTAGE



RELATIVE INTENSITY Vs.
FORWARD CURRENT



MAX DC FORWARD CURRENT Vs
AMBIENT TEMPERATURE



RELATIVE INTENSITY VS OFF AXIS ANGLE

**PACKING & LABEL SPECIFICATIONS** **WP7678C2PBC/Z**