

PRELIMINARY SPEC

KPED-3528MBCK BLUE

### Features

- SINGLE COLOR.
- SUITABLE FOR ALL SMT ASSEMBLY AND SOLDER PROCESS.
- IDEAL FOR BACKLIGHTING.
- AVAILABLE ON TAPE AND REEL.
- PACKAGE : 500PCS / REEL.

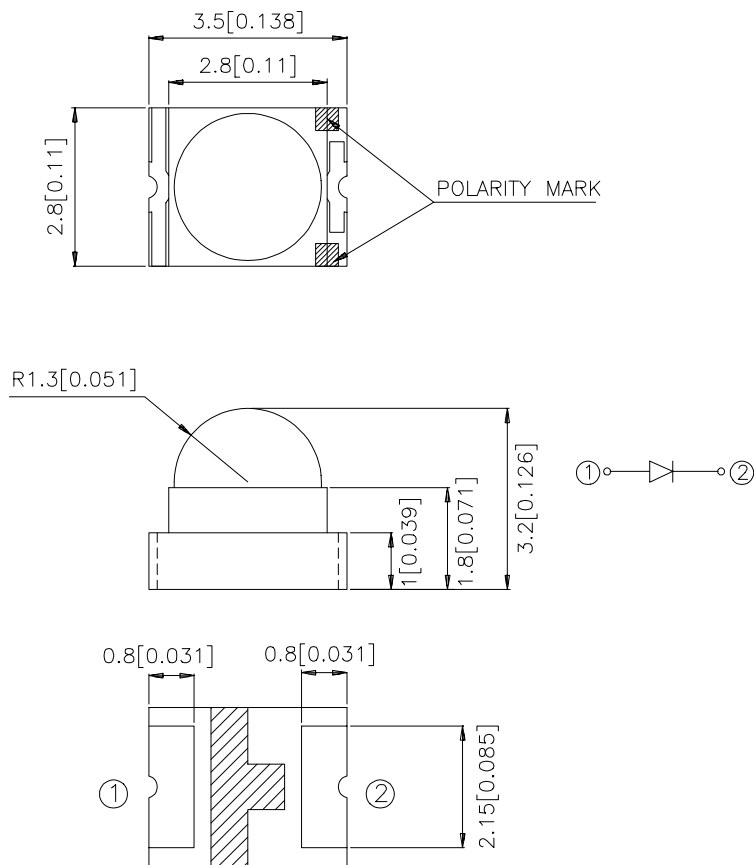
### Description

The Blue source color devices are made with GaN on SiC Light Emitting Diode.

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.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.2$  (0.0079") unless otherwise noted.
3. Specifications are subject to change without notice.

## Selection Guide

| Part No.      | Dice      | Lens Type   | Iv (mcd)<br>@ 20 mA |      | Viewing<br>Angle |
|---------------|-----------|-------------|---------------------|------|------------------|
|               |           |             | Min.                | Typ. | 2θ1/2            |
| KPED-3528MBCK | BLUE(GaN) | WATER CLEAR | 7                   | 30   | 40°              |

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

## Electrical / Optical Characteristics at T<sub>A</sub>=25°C

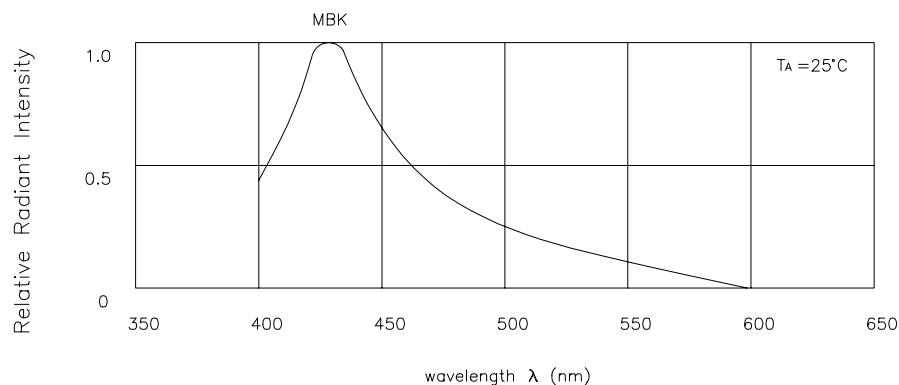
| Symbol            | Parameter                | Device | Typ. | Max. | Units | Test Conditions           |
|-------------------|--------------------------|--------|------|------|-------|---------------------------|
| λ <sub>peak</sub> | Peak Wavelength          | Blue   | 430  |      | nm    | I <sub>F</sub> =20mA      |
| λ <sub>D</sub>    | Dominate Wavelength      | Blue   | 466  |      | nm    | I <sub>F</sub> =20mA      |
| Δλ <sub>1/2</sub> | Spectral Line Half-width | Blue   | 60   |      | nm    | I <sub>F</sub> =20mA      |
| C                 | Capacitance              | Blue   | 100  |      | pF    | V <sub>F</sub> =0V;f=1MHz |
| V <sub>F</sub>    | Forward Voltage          | Blue   | 4.0  | 4.5  | V     | I <sub>F</sub> =20mA      |
| I <sub>R</sub>    | Reverse Current          | Blue   |      | 10   | uA    | V <sub>R</sub> = 5V       |

## Absolute Maximum Ratings at T<sub>A</sub>=25°C

| Parameter                      | Blue           | Units |
|--------------------------------|----------------|-------|
| Power dissipation              | 105            | mW    |
| DC Forward Current             | 30             | mA    |
| Peak Forward Current [1]       | 150            | mA    |
| Reverse Voltage                | 5              | V     |
| Operating /Storage Temperature | -40°C To +85°C |       |

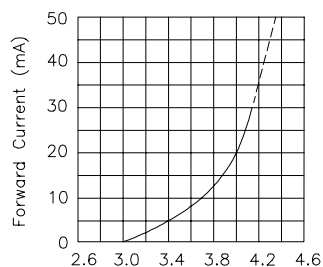
Note:

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

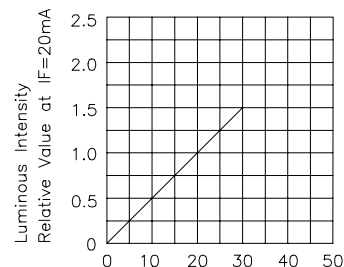


RELATIVE INTENSITY Vs. WAVELENGTH

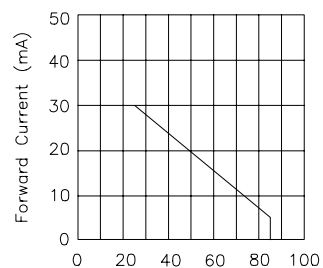
## Blue KPED-3528MBCK



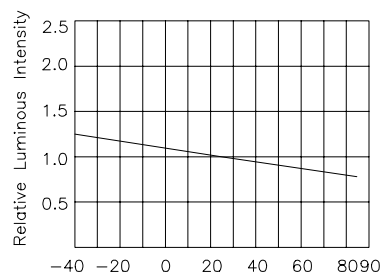
Forward Voltage(V)  
FORWARD CURRENT Vs.  
FORWARD VOLTAGE



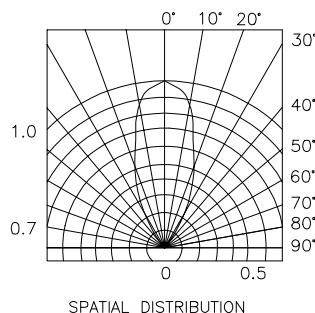
$I_f$ —Forward Current (mA)  
LUMINOUS INTENSITY Vs.  
FORWARD CURRENT



Ambient Temperature  $T_a$  (°C)  
FORWARD CURRENT  
DERATING CURVE



Ambient Temperature  $T_a$  (°C)  
LUMINOUS INTENSITY Vs.  
AMBIENT TEMPERATURE

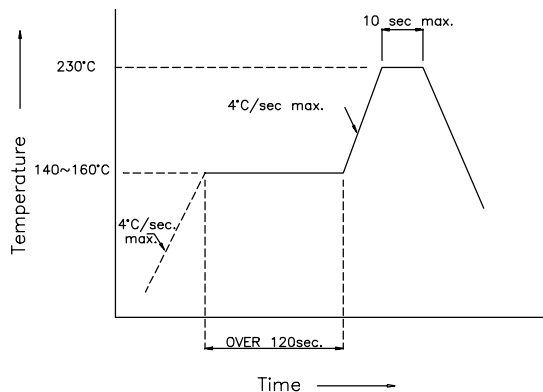


SPATIAL DISTRIBUTION

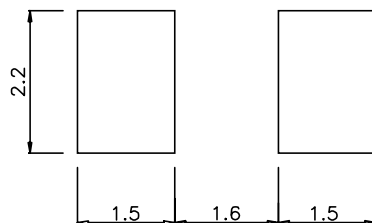
## KPED-3528MBCK

### SMT Reflow Soldering Instructions

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



### Recommended Soldering Pattern (Units : mm)



### Tape Specifications (Units : mm)

