



ATTENTION

OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

W53MBD

BLUE

Features

- LOW POWER CONSUMPTION.
- POPULAR T-1 3/4 DIAMETER PACKAGE.
- GENERAL PURPOSE LEADS.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.
- AVAILABLE ON TAPE AND REEL.

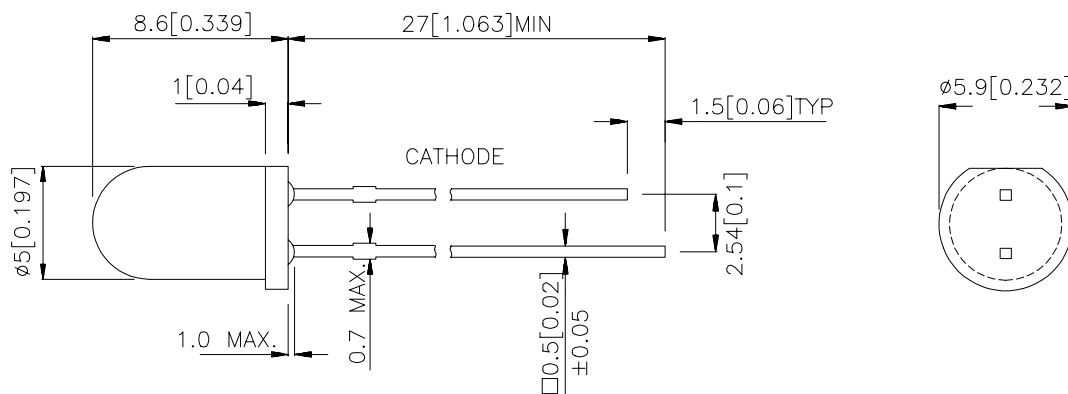
Description

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 ± 0.25 (0.01") unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) @ 20 mA | | Viewing Angle |
|----------|------------|---------------|---------------------|------|------------------|
| | | | Min. | Typ. | 2 θ 1/2 |
| W53MBD | BLUE (GaN) | BLUE DIFFUSED | 36 | 60 | 20° |

Note:

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

Electrical / Optical Characteristics at T_A=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|-----------------------|--------------------------|--------|------|------|-------|-----------------------------|
| λ_{peak} | Peak Wavelength | Blue | 430 | | nm | I _F =20mA |
| λ_D | Dominate Wavelength | Blue | 466 | | nm | I _F =20mA |
| $\Delta\lambda_{1/2}$ | Spectral Line Half-width | Blue | 60 | | nm | I _F =20mA |
| C | Capacitance | Blue | 100 | | pF | V _F =0V; f=1 MHz |
| V _F | Forward Voltage | Blue | 3.8 | 4.5 | V | I _F =20mA |
| I _R | Reverse Current | Blue | | 10 | uA | V _R = 5V |

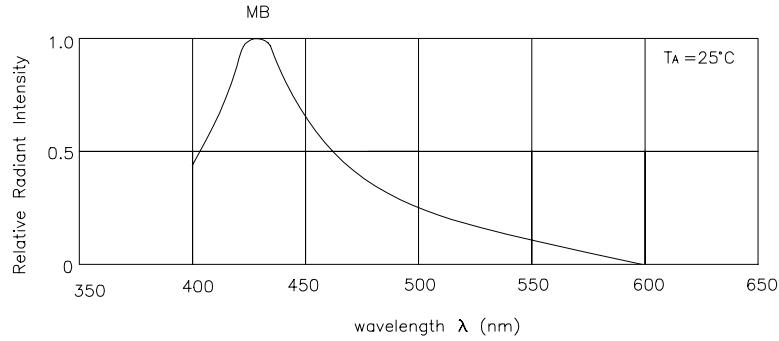
Absolute Maximum Ratings at T_A=25°C

| 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 | |
| Lead Solder Temperature [2] | 260°C For 5 Seconds | |

Notes:

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

2. 2mm below package base.



RELATIVE INTENSITY Vs. WAVELENGTH

Blue

W53MBD

