NICOMATIC

CREATIVE
INTERCONNECT
SOLUTIONS

Product
datasheet

# LED

## MEMBRANE-THIN
## 0.35 mm HIGH

## ADVANTAGES

- 0.35mm high
- Easy to place size versus other packaging
- Reduce spacer thickness and/or eliminate embossing (cost reduction)
- Market standard tape & reel for automated pick & place machines (3 000 LEDs per reel)
- High ESD value for all colors

## FUNCTIONALITIES

- Specific DESIGN for Printed Conductive Ink

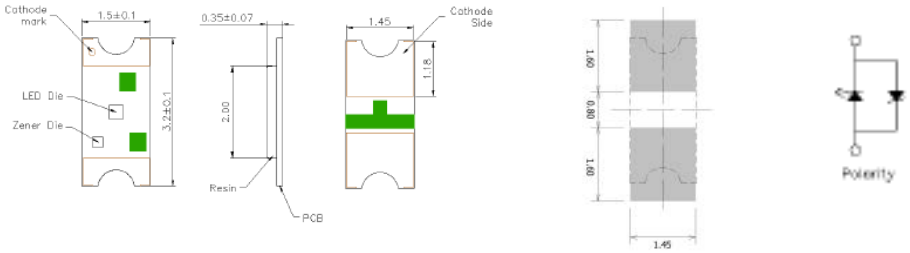
# TECHNICAL DATA

## ELECTRO-OPTICAL CHARACTERISTICS ($I_F$=20mA / Ta=25˚C)

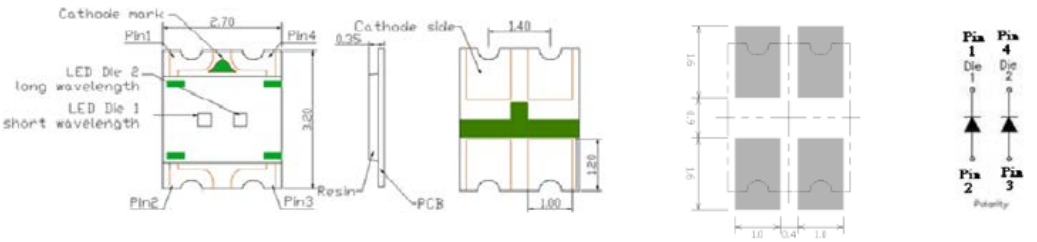
| Part Number | Lens Type | Emitting Color | Dominant Wavelength λd (nm) | Luminous Intensity Iv (mcd) | | Forward Voltage VF (V) | | Reverse Current $I_R$ max (μA) @ $V_R$ = 5V |
|---|---|---|---|---|---|---|---|---|
| | | | | Min. | Typ. | Typ. | Max. | |
| ZQR35W-035 | Water Clear | Red | 634 | 28.5 | 100 | 2 | 2.4 | 100 |
| ZQO35W-035 | Water Clear | Orange | 600 | 60 | 120 | 2.05 | 2.4 | 100 |
| ZQY35W-035 | Water Clear | Yellow | 584 | 60 | 120 | 2.05 | 2.4 | 100 |
| ZQG35W-035 | Water Clear | Green | 567 | 28.5 | 80 | 2.1 | 2.4 | 100 |
| ZQB35W-035 | Water Clear | Blue | 465 | 45 | 60 | 3.3 | 3.8 | 100 |
| ZQW35D-035 | Water Clear | White | - | 300 | 500 | 3.3 | 3.7 | 100 |
| BQRQG35W-035 | Water Clear | Red<br>Green | 619<br>567 | 28.5<br>28.5 | 100<br>80 | 2<br>2.1 | 2.4<br>2.4 | 100 |
| BQYQG35W-035 | Water Clear | Yellow<br>Green | 584<br>567 | 45<br>28.5 | 115<br>80 | 2.05<br>2.1 | 2.4<br>2.4 | 100 |
| BQRQY35W-035 | Water Clear | Red<br>Yellow | 619<br>584 | 28.5<br>45 | 100<br>115 | 2<br>2.05 | 2.4<br>2.4 | 100 |

## PACKAGE DIMENSION & RECOMMENDED SOLDER PATTERN

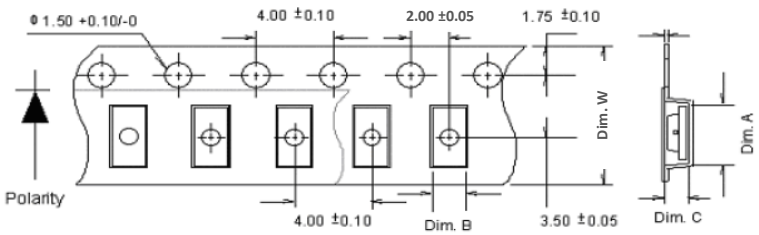
Mono-color type




Bi-color type




## CARRIER TAPE DIMENSION




| | Dim. W (mm) | Dim. A (mm) | Dim.B (mm) | Dim.C (mm) |
|---|---|---|---|---|
| Mono-color tape | 8.00 ± 0.20 | 3.40 ± 0.05 | 1.80 ± 0.05 | 0.50 ± 0.05 |
| Bi-color tape | 12.00 ± 0.20 | | 2.80 ± 0.05 | |

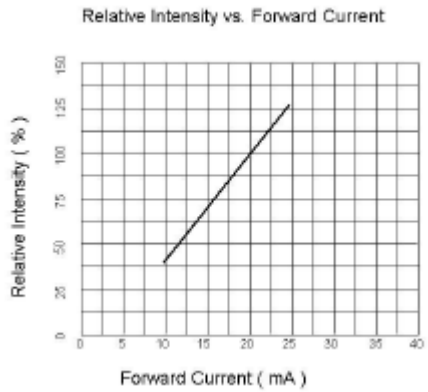
# TECHNICAL DATA

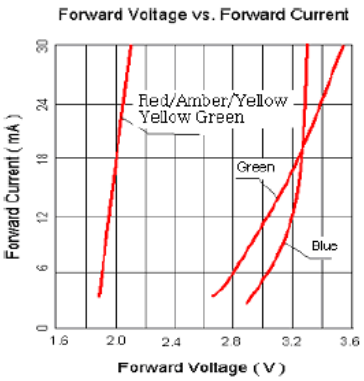
## PRODUCT CHARACTERISTICS (ABSOLUTE MAXIMUM RATINGS)

| | Red / Orange / Yellow / Green | Blue | White |
|---|---|---|---|
| Reverse voltage $V_R$ | 5V | | |
| Forward current $I_F$ | 30 mA | 20 mA | 20 mA |
| Peak Forward Current $I_{FP}$ (Duty 1/10 @ 1KHz) | 100 mA | 80 mA | 80 mA |
| Power Dissipation Pd | 72 mW | 78 mW | 78 mW |
| Electrostatic Discharge (ESD) | 2000 V | | |
| Operating temperature $T_{opr}$ | -40°C to +85°C | | |
| Storage temperature $T_{stg}$ | -40°C to +100°C | | |
| Soldering temperature $T_{sol}$ | 220°C for 60 sec.<br>260°C for 10sec. | | |

*Tolerances:*
- *Luminous Intensity (Iv): ±10%*
- *Dominant Wavelength (λd): ±0.5nm*
- *Forward Voltage ($V_F$): ±0.05V*

## TYPICAL ELECTRO-OPTICAL CHARACTERISTICS CURVES




# OTHER INFORMATION

## PRECAUTIONS FOR USE

**Electrostatic Discharge (ESD) protection**

The symbol to the left denotes that ESD precaution is needed. ESD protection for GaP and AlGaAs based chips is necessary even though they are relatively safe in the presence of low static-electric discharge. Parts built with AlInGaP, GaN, or/and InGaN based chips are **STATIC SENSITIVE devices. ESD precaution must be taken during design and assembly.** If manual work or processing is needed, please ensure the device is adequately protected from ESD during the process.