## ARL2-3040PGC

## Features:

1. 3 mm Columnar Type
2. Green LED Lamp
3. Water Clear Lens
4. Lamp Trilby Without Stopper

## Package Dimensions (mm):



## Spatial Distribution:



Notes:

1. All dimensions are in millimeters.
2. Tolerance is $\pm 0.2 \mathrm{~mm}$ unless otherwise specified.
3. An epoxy meniscus may extend about 1.5 mm down the leads
4. Burr around bottom of epoxy may be 0.5 mm max.

## Typical Electrical \& Optical Characteristics ( $\mathbf{T a}=\mathbf{2 5}^{\circ} \mathrm{C}$ )

| Items | Symbol | Condition | Min. | Typ. | Max. | Unit |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Forward Voltage | $\mathrm{V}_{\mathrm{F}}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA}$ | 2.8 | 3.0 | 3.6 | V |
| Reverse Current | $\mathrm{I}_{\mathrm{R}}$ | $\mathrm{V}_{\mathrm{R}}=5 \mathrm{~V}$ | - | - | 50 | $\mu \mathrm{~A}$ |
| Dominant Wavelength | $\lambda_{\mathrm{D}}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA}$ | 520 | - | 530 | nm |
| Luminous Intensity | $\mathrm{I}_{V}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA}$ | 200 | 300 | - | mcd |
| $50 \%$ Power Viewing Angle | $2 \theta_{1 / 2}$ | $\mathrm{I}_{\mathrm{F}}=20 \mathrm{~mA}$ | - | 110 | - | deg |

## Absolute Maximum Ratings ( $\mathrm{Ta}=\mathbf{2 5}^{\circ} \mathrm{C}$ ):

| Items | Symbol | Absolute Maximum Rating | Unit |
| :--- | :---: | :---: | :---: |
| Forward Current | $\mathrm{I}_{\mathrm{F}}$ | 50 | mA |
| Peak Forward Current* | $\mathrm{I}_{\mathrm{FP}}$ | 200 | mA |
| Continuous Forward Current | $\mathrm{I}_{\mathrm{L}}$ | 20 | mA |
| Reverse Voltage | $\mathrm{V}_{\mathrm{R}}$ | 5 | V |
| Power Dissipation | $\mathrm{P}_{\mathrm{D}}$ | 150 | mW |
| Derating Linear From $50^{\circ} \mathrm{C}$ |  | 0.4 | $\mathrm{~mA} /{ }^{\circ} \mathrm{C}$ |
| Operation Temperature | Topr | $-40 \sim+95$ | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature | Tstg | $-40 \sim+100$ | ${ }^{\circ} \mathrm{C}$ |
| Lead Soldering Temperature | Tsol | Max. $260^{\circ} \mathrm{C}$ for 5 sec Max. |  |

*IFP Conditions: Pulse Width $\leq 10 \mathrm{msec}$ duty $\leq 1 / 10$
**Tsol Conditions: 4 mm from the base of the epoxy bulb

Reliability Performance:

| Test Classification | Test Item | Test Conditions | Test Duration | Sample Size | Ac/Re |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Life Test | Life Test | $\begin{gathered} \mathrm{Ta}=25^{\circ} \mathrm{C} \pm 5^{\circ} \mathrm{C}, \\ \mathrm{IF}=20 \mathrm{~mA} \end{gathered}$ | 1000 (PGs) | 30pcs | 0/1 |
| Environment Test | Thermal Shock Test |  | 50 (cycles) | 30pcs | 0/1 |
|  | Temperature Cycle Test | $\begin{gathered} -55^{\circ} \mathrm{C} \pm 5^{\circ} \mathrm{C} \longleftrightarrow+85^{\circ} \mathrm{C} \pm 5^{\circ} \mathrm{C} \\ 30 \mathrm{~min} . \quad 5 \mathrm{~min} . \quad 30 \mathrm{~min} . \end{gathered}$ | 50 (cycles) | 30pcs | 0/1 |
|  | High Temperature \& High Humidity Test | $\begin{gathered} \mathrm{Ta}=85^{\circ} \mathrm{C} \pm 5^{\circ} \mathrm{C} \\ \mathrm{RH}=85 \% \pm 0.5 \% \mathrm{RH} \end{gathered}$ | 1000 (PGs) | 30pcs | 0/1 |
|  | High Temperature Storage | $\mathrm{Ta}=100^{\circ} \mathrm{C} \pm 5^{\circ} \mathrm{C}$ | 1000 (PGs) | 30pcs | 0/1 |
|  | Low Temperature Storage | $\mathrm{Ta}=-55^{\circ} \mathrm{C} \pm 5^{\circ} \mathrm{C}$ | 1000 (PGs) | 30pcs | 0/1 |
| Mechanical Test | Resistance to Soldering Heat | $\mathrm{Ta}=260^{\circ} \mathrm{C} \pm 5^{\circ} \mathrm{C}$ | 5 (sec.) | 30pcs | 0/1 |
|  | Lead Integrity | $0^{\circ} \sim 90^{\circ} \sim 0^{\circ}$ | 3 (times) | 30pcs | 0/1 |

## Typical Optical/ Electrical Characteristics Curves ( $\mathrm{Ta}=25^{\circ} \mathrm{C}$ Unless Otherwise Noted):

Forward Our rent vs. Anbi ent Tenper at ure Fel ative I nt ensity vs. Antoi ent Tenper at ure


For war d Cur r ent vs. Forward Vol tage



Forward Vol tage vs. Antio ent Tenper ature


Luninous Goertrum( $\mathrm{Ta}=25^{\circ} \mathrm{C}$ )
SFECTRM RMCD ANE


