

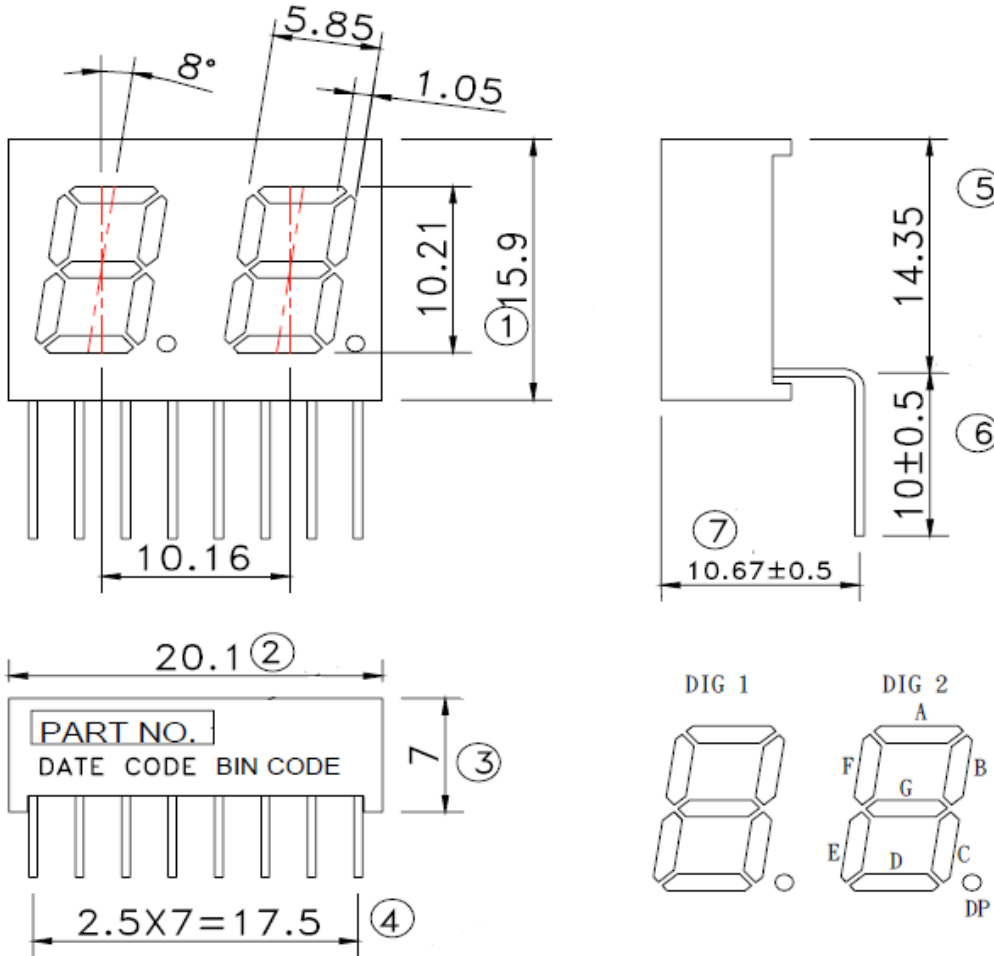


# American Opto Plus LED Corp.

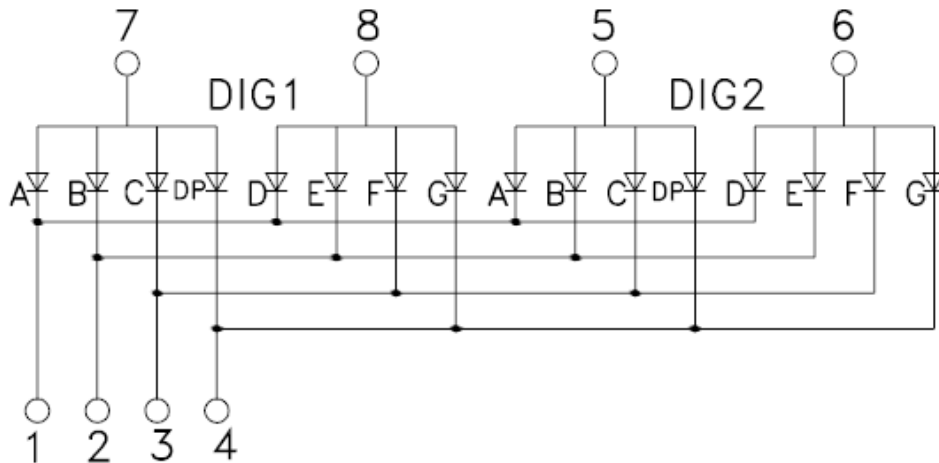
## 0.40" SMD Type LED Display

### A402SR-10.7LF G/W

#### MECHANICAL DIMENSIONS



#### TYPICAL INTERNAL EQUIVALENT CIRCUIT



Note: Tolerances  $\pm 0.25\text{mm}$



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**A402SR-10.7LF G/W**

**ABSOLUTE MAXIMUM RATING AT Ta=25°C**

| Parameter                            | Symbol           | Red       | Unit  |
|--------------------------------------|------------------|-----------|-------|
| Power dissipation                    | P <sub>AD</sub>  | 60        | mW    |
| Peak current (duty cycle 1/10, 1kHz) | I <sub>PF</sub>  | 100       | mA    |
| Forward current                      | I <sub>AF</sub>  | 25        | mA    |
| Derating Liner from 25°C             | -                | 0.33      | mA/°C |
| Reverse voltage                      | V <sub>R</sub>   | 5         | V     |
| Operating temperature                | T <sub>OPR</sub> | -35 ~ +80 | °C    |
| Storage temperature                  | T <sub>STG</sub> | -35 ~ +80 | °C    |

Solder Temperature 1/16inch Below Seating Plane for 3 Seconds at 260°C

**ELECTRICAL - OPTICAL CHARACTERISTICS AT Ta=25°C**

| Characteristic           | Symbol            | Min. | Type | Max. | Unit | Condition            |
|--------------------------|-------------------|------|------|------|------|----------------------|
| Luminous Intensity       | I <sub>v</sub>    | 2    | 4.2  | -    | mcd  | I <sub>F</sub> =10mA |
| Peak Wavelength          | λ <sub>P</sub>    | -    | 660  | -    | nm   | I <sub>F</sub> =20mA |
| Dominant Wavelength      | λ <sub>d</sub>    | -    | 643  | -    | nm   | I <sub>F</sub> =20mA |
| Spectral Line Half-width | Δλ                | -    | 20   | -    | nm   | I <sub>F</sub> =20mA |
| Forward Voltage          | V <sub>F</sub>    | -    | 1.85 | 2.4  | V    | I <sub>F</sub> =20mA |
| Reverse Current          | I <sub>R</sub>    | -    | -    | 20   | μA   | V <sub>R</sub> =5V   |
| Luminous Tolerance       | I <sub>v</sub> -m | -    | -    | 2:1  | -    | I <sub>F</sub> =10mA |



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#### Typical Electro-optical Characteristic Curves

(Ta=25°C)

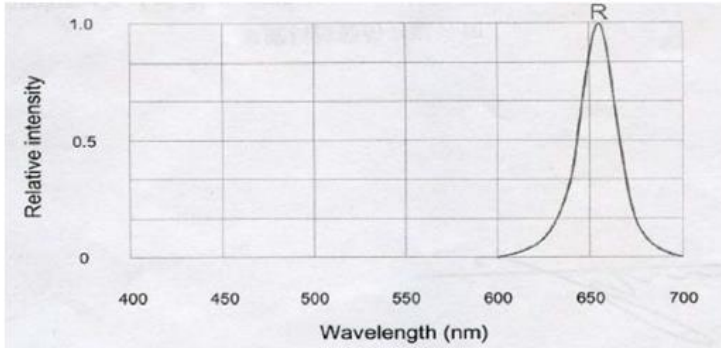


Fig1. Relative Intensity vs. Wavelength

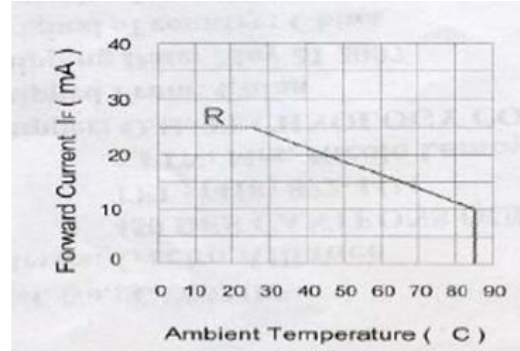


Fig3. Allowable DC Current vs. Ambient Temperature

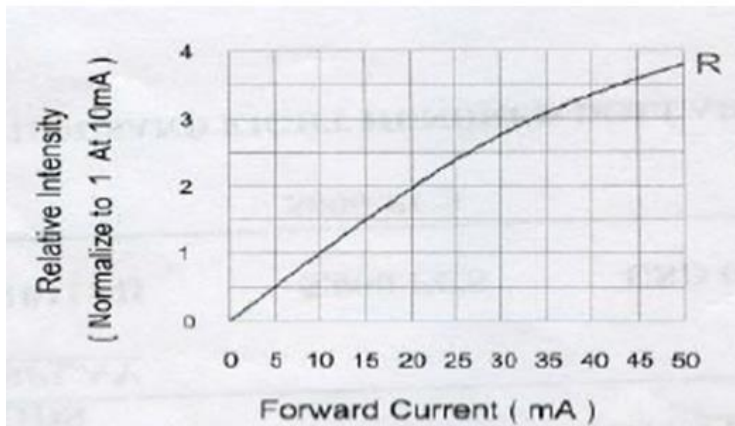


Fig2. Relative Intensity vs. Forward Current

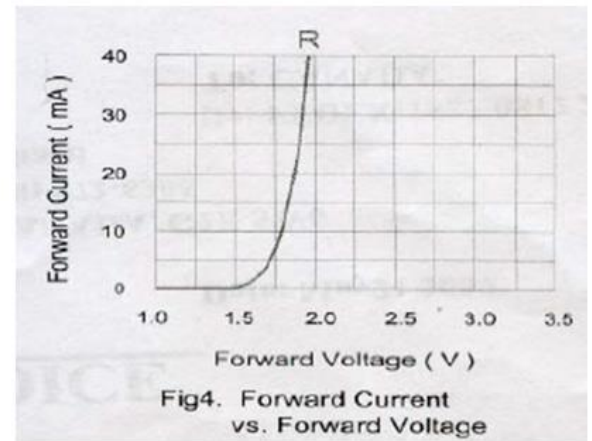


Fig4. Forward Current vs. Forward Voltage