



Specification for Approval

- DEVICE NUMBER: BD-A542RI

SAMPLES
ATTACHED AREA

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|-------------|-----|-----|-----|-----|--|--|--|--|--|--|------------------|
| 2015/8/17 | 1.0 | 1.0 | 1.0 | 1.0 | | | | | | | Initial Released |
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FOR CUSTOMER'S APPROVAL STAMP OR SIGNATURE

| APPROVED | PURCHASE | MANUFACTURE | QUALITY | ENGINEERING |
|----------|----------|-------------|---------|-------------|
| | | | | |

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| ISSUED | APPROVED | PREPARED |
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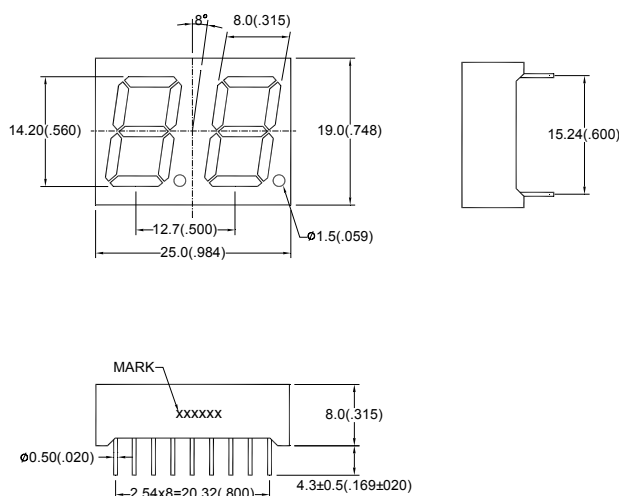
● Features :

1. 0.56 inch (14.20mm) Digit Height.
2. Continuous uniform segments.
3. Low power requirement.
4. Excellent characters appearance.
5. Solid state reliability.
6. Categorized for luminous intensity.
7. Direct drive common anode.

● Description :

1. The BD-A542RI is a 14.2mm(0.56") high dual digit seven segments display.
2. This product use green chips,
3. This product have a gray face and white segments.
4. This product doesn't contain restriction substance, comply ROHS standard.

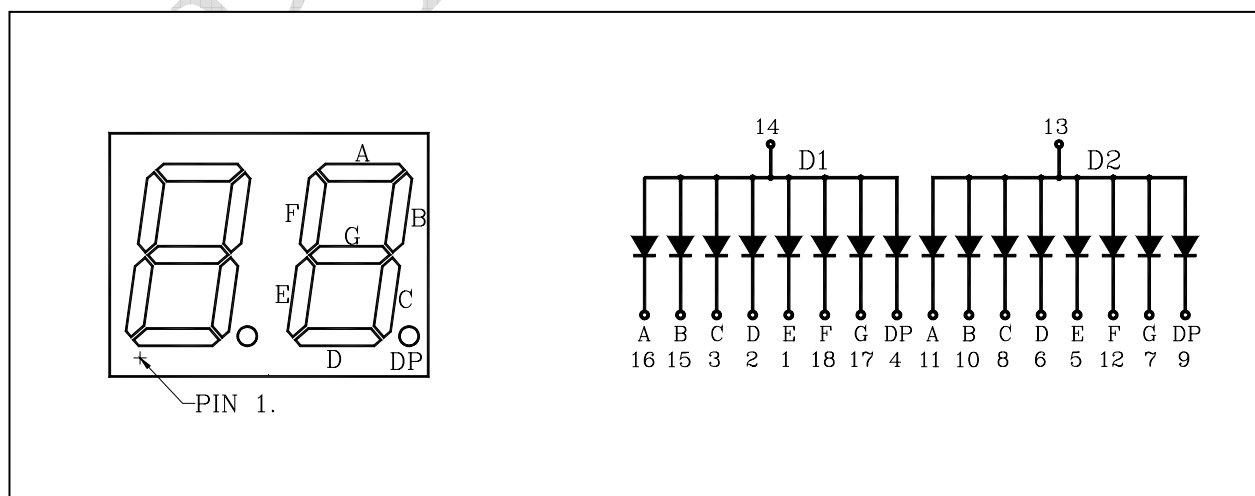
● Package Dimensions :



Notes:

1. All dimensions are in millimeters(inches).
2. Tolerance is $\pm 0.25\text{mm}(.01\text{'})$ unless otherwise specified.
3. Specifications are subject to change without notice.

● Internal Circuit Diagram :



● **Absolute Maximum Ratings(Ta=25°C)**

| Parameter | Symbol | Rating | Unit |
|----------------------------------|--------------------------------------|------------|------|
| Power Dissipation Per Segment | Pd | 80 | mW |
| Forward Current Per Segment | I _F | 30 | mA |
| Peak Forward Current Per Segment | I _{FP} (Duty 1/10, 1KHZ) | 150 | mA |
| Reverse Voltage Per Segment | V _R | 5 | V |
| Operating Temperature | Topr | -40°C~80°C | - |
| Storage Temperature | Tstg | -40°C~85°C | - |

● **Electrical And Optical Characteristics(Ta=25°C)**

| Parameter | Symbol | Condition | Min. | Typ. | Max. | Unit |
|--------------------------------|----------------|----------------------|------|------|------|------|
| Forward Voltage Per Segment | V _f | I _F =10mA | - | 2.1 | 2.5 | V |
| Luminous Intensity Per Segment | I _v | I _F =10mA | - | 3.0 | - | mcd |
| Reverse Current Per Segment | I _R | V _R =5V | - | - | 100 | μA |
| Peak Wave Length | λ _p | I _F =20mA | - | 568 | - | nm |
| Dominant Wave Length | λ _d | I _F =20mA | 565 | - | 574 | nm |
| Spectral Line Half-width | Δλ | I _F =20mA | - | 30 | - | nm |

● Typical Electro-Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

Fig.1 Relative Radiant Intensity VS. Wavelength

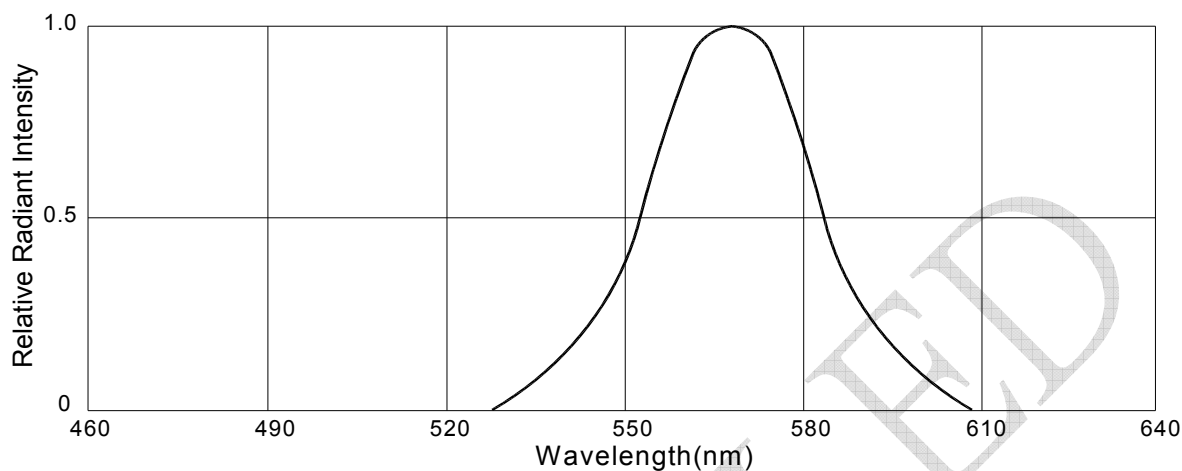


Fig.2 Forward Current VS. Forward Voltage

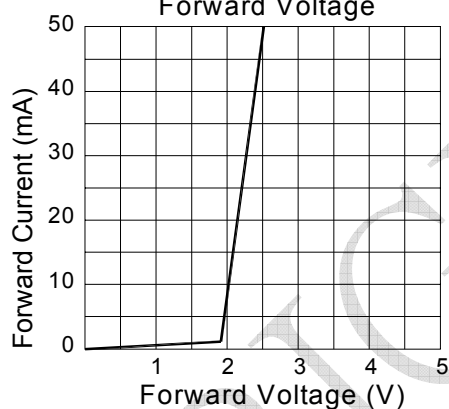


Fig.3 Relative Luminous Intensity VS. Ambient Temperature

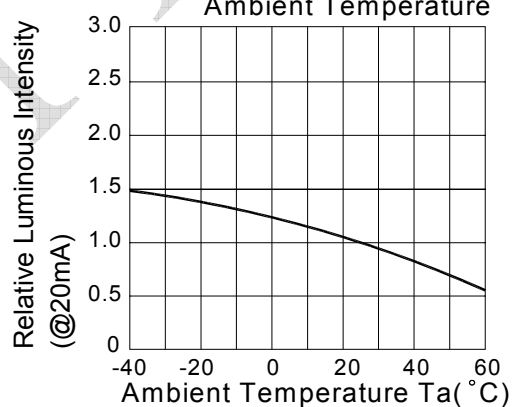


Fig.4 Relative Luminous Intensity VS. Forward Current

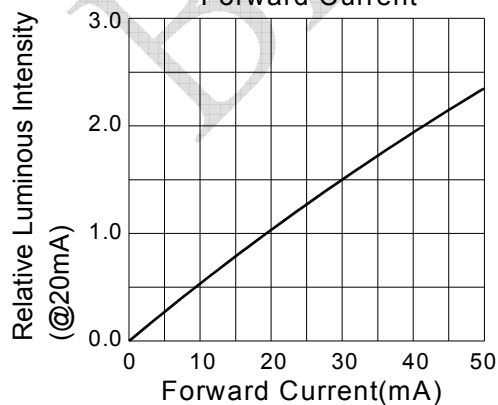
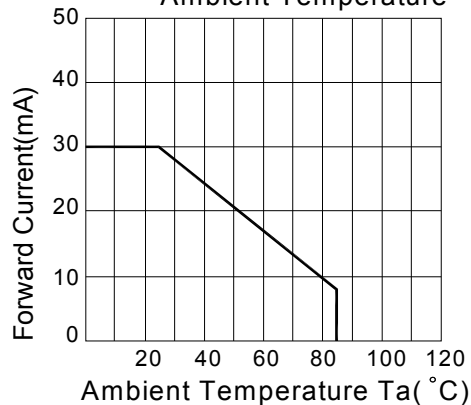
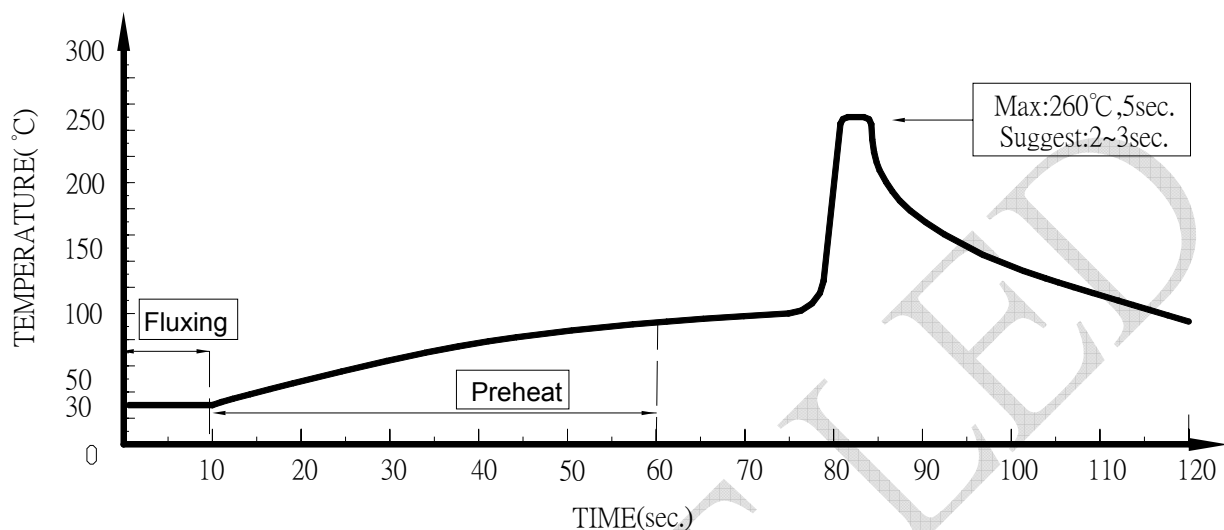


Fig.5 Forward Current Derating Curve VS. Ambient Temperature



● Dip Soldering



1. Please avoid any external stress applied to the lead-frames and epoxy while the LEDs are at high temperature, especially during soldering
2. DIP soldering and hand soldering should not be done more than one time.
3. After soldering, avoid the epoxy lens from mechanical shock or vibration until the LEDs are back to room temperature.
4. Avoid rapid cooling during temperature ramp-down process
5. Although the soldering condition is recommended above, soldering at the lowest possible temperature is feasible for the LEDs

● IRON Soldering

300°C Within 3 sec., One time only.