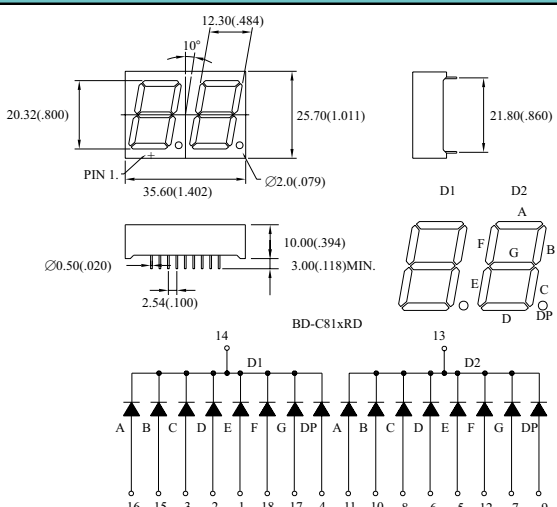
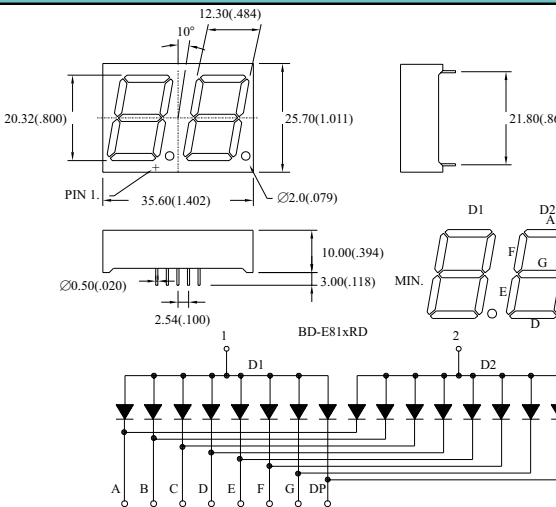
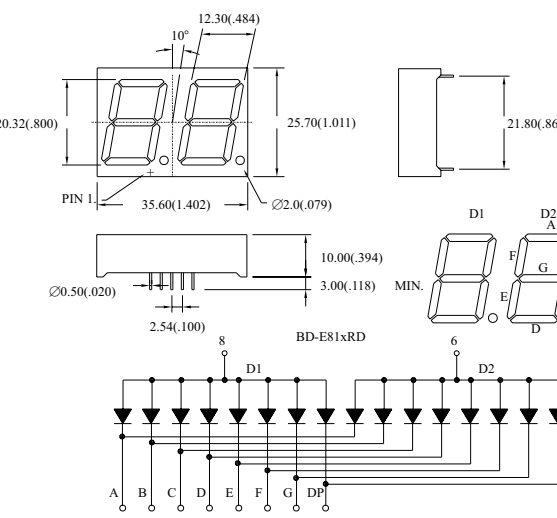
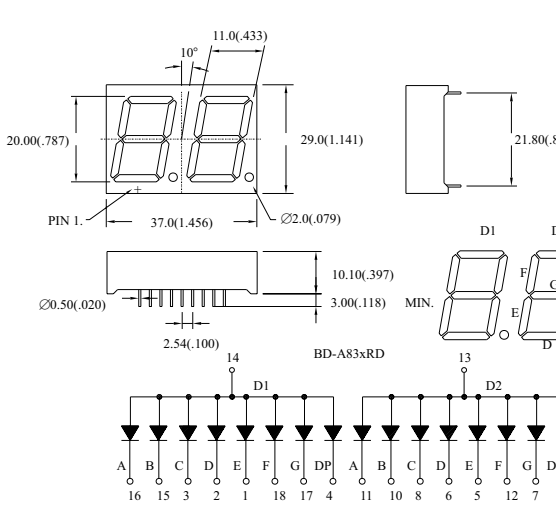
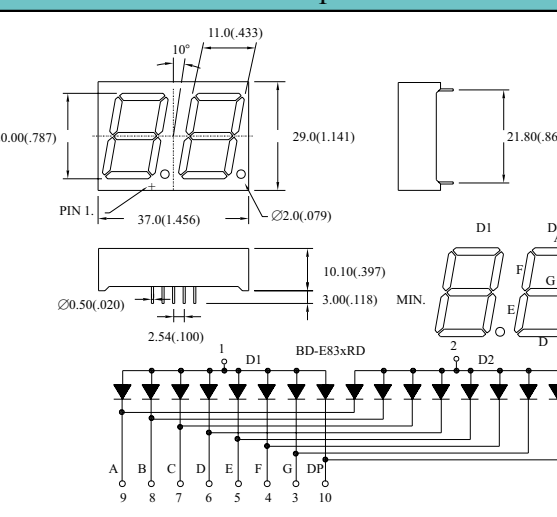
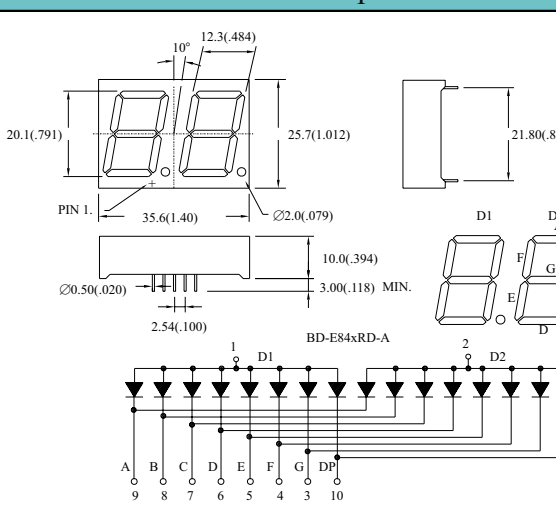




# DUAL DIGIT LED DISPLAYS

| Digit Size          | Part No.     |                       | Chip                   |                                  | Absolute Maximum Ratings |         |         |          | Electro-optical Data(At 10mA) |      |                         | Drawing No. |
|---------------------|--------------|-----------------------|------------------------|----------------------------------|--------------------------|---------|---------|----------|-------------------------------|------|-------------------------|-------------|
|                     | Common Anode | Common Cathode        | Material/Emitted Color | Peak Wave Length $\lambda$ p(nm) | $\Delta \lambda$ (nm)    | Pd (mw) | If (mA) | Ifp (mA) | Vf (v)                        |      | Iv. Typ. Per.Seg. (mcd) |             |
|                     |              |                       |                        |                                  |                          |         |         |          | Typ.                          | Max. |                         |             |
| 0.80"<br>Dual-Digit | BD-A811RD    | BD-C811RD             | GaAsP/Red              | 655                              | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.2                     | DD-25       |
|                     | BD-A815RD    | BD-C815RD             | GaP/ Bright Red        | 700                              | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.6                     |             |
|                     | BD-A815RE    | BD-C815RE             |                        |                                  |                          |         |         |          |                               |      |                         |             |
|                     | BD-A812RD    | BD-C812RD             | GaP/ Green             | 568                              | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 4.0                     |             |
|                     | BD-A813RD    | BD-C813RD             | GaAsP/GaP/ Yellow      | 585                              | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 3.0                     |             |
|                     | BD-A814RD    | BD-C814RD             | GaAsP/GaP/ Hi-Eff.Red  | 635                              | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 4.0                     |             |
|                     |              |                       | GaAsP/GaP/ Orange      |                                  |                          |         |         |          |                               |      |                         |             |
|                     | BD-A816RD    | BD-C816RD             | GaAlAs/ SH Super Red   | 660                              | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
|                     | BD-A81FRD    | BD-C81FRD             | GaAlAs/ DDH Super Red  | 660                              | 20                       | 80      | 30      | 150      | 2.0                           | 2.5  | 12.0                    |             |
|                     | BD-E811RD    | BD-F811RD             | GaAsP/Red              | 655                              | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.2                     | DD-26       |
|                     | BD-E815RD    | BD-F815RD             | GaP/ Bright Red        | 700                              | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.6                     |             |
|                     | BD-E815RE    | BD-F815RE             |                        |                                  |                          |         |         |          |                               |      |                         |             |
|                     | BD-E812RD    | BD-F812RD             | GaP/ Green             | 568                              | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 4.0                     |             |
|                     | BD-E813RD    | BD-F813RD             | GaAsP/GaP/ Yellow      | 585                              | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 3.0                     |             |
|                     | BD-E814RD    | BD-F814RD             | GaAsP/GaP/ Hi-Eff.Red  | 635                              | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 4.0                     |             |
|                     |              |                       | GaAsP/GaP/ Orange      |                                  |                          |         |         |          |                               |      |                         |             |
|                     | BD-E816RD    | BD-F816RD             | GaAlAs/ SH Super Red   | 660                              | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
|                     | BD-E81FRD    | BD-F81FRD             | GaAlAs/ DDH Super Red  | 660                              | 20                       | 80      | 30      | 150      | 2.0                           | 2.5  | 12.0                    |             |
|                     | BD-E811RD-A  | BD-F811RD-A           | GaAsP/Red              | 655                              | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.2                     | DD-27       |
|                     | BD-E815RD-A  | BD-F815RD-A           | GaP/ Bright Red        | 700                              | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.6                     |             |
|                     | BD-E815RE-A  | BD-F815RE-A           |                        |                                  |                          |         |         |          |                               |      |                         |             |
|                     | BD-E812RD-A  | BD-F812RD-A           | GaP/ Green             | 568                              | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 4.0                     |             |
|                     | BD-E813RD-A  | BD-F813RD-A           | GaAsP/GaP/ Yellow      | 585                              | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 3.0                     |             |
|                     | BD-E814RD-A  | BD-F814RD-A           | GaAsP/GaP/ Hi-Eff.Red  | 635                              | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 4.0                     |             |
|                     |              |                       | GaAsP/GaP/ Orange      |                                  |                          |         |         |          |                               |      |                         |             |
|                     | BD-E816RD-A  | BD-F816RD-A           | GaAlAs/ SH Super Red   | 660                              | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
|                     | BD-E81FRD-A  | BD-F81FRD-A           | GaAlAs/ DDH Super Red  | 660                              | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 12.0                    |             |
|                     | BD-A831RD    | BD-C831RD             | GaAsP/Red              | 655                              | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.2                     | DD-28       |
|                     | BD-A835RD    | BD-C835RD             | GaP/ Bright Red        | 700                              | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.6                     |             |
|                     | BD-A835RE    | BD-C835RE             |                        |                                  |                          |         |         |          |                               |      |                         |             |
|                     | BD-A832RD    | BD-C832RD             | GaP/ Green             | 568                              | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 4.0                     |             |
|                     | BD-A833RD    | BD-C833RD             | GaAsP/GaP/ Yellow      | 585                              | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 3.0                     |             |
|                     | BD-A834RD    | BD-C834RD             | GaAsP/GaP/ Hi-Eff.Red  | 635                              | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 4.0                     |             |
|                     |              |                       | GaAsP/GaP/ Orange      |                                  |                          |         |         |          |                               |      |                         |             |
|                     | BD-A836RD    | BD-C836RD             | GaAlAs/ SH Super Red   | 660                              | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
|                     | BD-A83FRD    | BD-C83FRD             | GaAlAs/ DDH Super Red  | 660                              | 20                       | 80      | 30      | 150      | 2.0                           | 2.5  | 12.0                    |             |
|                     | BD-E831RD    | BD-F831RD             | GaAsP/Red              | 655                              | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.2                     | DD-29       |
|                     | BD-E835RD    | BD-F835RD             | GaP/ Bright Red        | 700                              | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.6                     |             |
|                     | BD-E835RE    | BD-F835RE             |                        |                                  |                          |         |         |          |                               |      |                         |             |
|                     | BD-E832RD    | BD-F832RD             | GaP/ Green             | 568                              | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 4.0                     |             |
|                     | BD-E833RD    | BD-F833RD             | GaAsP/GaP/ Yellow      | 585                              | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 3.0                     |             |
|                     | BD-E834RD    | BD-F834RD             | GaAsP/GaP/ Hi-Eff.Red  | 635                              | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 4.0                     |             |
| GaAsP/GaP/ Orange   |              |                       |                        |                                  |                          |         |         |          |                               |      |                         |             |
| BD-E836RD           | BD-F836RD    | GaAlAs/ SH Super Red  | 660                    | 20                               | 80                       | 30      | 150     | 1.7      | 2.5                           | 7.0  |                         |             |
| BD-E83FRD           | BD-F83FRD    | GaAlAs/ DDH Super Red | 660                    | 20                               | 80                       | 30      | 150     | 2.0      | 2.5                           | 12.0 |                         |             |
| BD-E841RD-A         | BD-F841RD-A  | GaAsP/Red             | 655                    | 40                               | 80                       | 40      | 200     | 1.7      | 2.0                           | 1.2  | DD-30                   |             |
| BD-E845RD-A         | BD-F845RD-A  | GaP/ Bright Red       | 700                    | 90                               | 40                       | 15      | 50      | 2.2      | 2.5                           | 1.6  |                         |             |
| BD-E845RE-A         | BD-F845RE-A  |                       |                        |                                  |                          |         |         |          |                               |      |                         |             |
| BD-E842RD-A         | BD-F842RD-A  | GaP/ Green            | 568                    | 30                               | 80                       | 30      | 150     | 2.2      | 2.5                           | 4.0  |                         |             |
| BD-E843RD-A         | BD-F843RD-A  | GaAsP/GaP/ Yellow     | 585                    | 35                               | 80                       | 30      | 150     | 2.1      | 2.5                           | 3.0  |                         |             |
| BD-E844RD-A         | BD-F844RD-A  | GaAsP/GaP/ Hi-Eff.Red | 635                    | 45                               | 80                       | 30      | 150     | 2.0      | 2.5                           | 4.0  |                         |             |
|                     |              | GaAsP/GaP/ Orange     |                        |                                  |                          |         |         |          |                               |      |                         |             |
| BD-E846RD-A         | BD-F846RD-A  | GaAlAs/ SH Super Red  | 660                    | 20                               | 80                       | 30      | 150     | 1.7      | 2.5                           | 7.0  |                         |             |
| BD-E84FRD-A         | BD-F84FRD-A  | GaAlAs/ DDH Super Red | 660                    | 20                               | 80                       | 30      | 150     | 2.0      | 2.5                           | 12.0 |                         |             |

|   |   |
|---|---|
| <p><b>DD-25</b>      <b>BD-<math>\frac{A}{C}</math>81xRD</b></p>     | <p><b>DD-26</b>      <b>BD-<math>\frac{E}{F}</math>81xRD</b></p>      |
| <p><b>DD-27</b>      <b>BD-<math>\frac{E}{F}</math>81xRD-A</b></p>  | <p><b>DD-28</b>      <b>BD-<math>\frac{A}{C}</math>83xRD</b></p>     |
| <p><b>DD-29</b>      <b>BD-<math>\frac{E}{F}</math>83xRD</b></p>   | <p><b>DD-30</b>      <b>BD-<math>\frac{E}{F}</math>84xRD-A</b></p>  |

NOTES: 1.All Dimensions are in millimeters(inches).  
3.Specifications are subject to change without notice.

2.Tolerance is  $\pm 0.25\text{mm}(.010")$ .  
4.NP:No Pin.    5.NC:No Connect.