



# Dual Digit LED Displays BD-A/C, BD-E/F Series

7-segment

| 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<br>$\lambda$ p(nm) | $\Delta \lambda$ (nm)    | Pd (mw) | If (mA) | Ifp (mA) | Vf (v)                        |      | Iv. Typ. Per.Seg. (mcd) |             |
|                  |              |                      |                        |                                     |                          |         |         |          | Typ.                          | Max. |                         |             |
| 0.28" Dual-Digit | BD-E281RD    | BD-F281RD            | GaAsP/Red              | 655                                 | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.5                     | DD-01       |
|                  | BD-E285RD    | BD-F285RD            | GaP/ Bright Red        | 700                                 | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.0                     |             |
|                  | BD-E285RE    | BD-F285RE            |                        |                                     |                          |         |         |          |                               |      |                         |             |
|                  | BD-E282RD    | BD-F282RD            | GaP/ Green             | 568                                 | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 2.5                     |             |
|                  | BD-E283RD    | BD-F283RD            | GaAsP/GaP/ Yellow      | 585                                 | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                  | BD-E284RD    | BD-F284RD            | GaAsP/GaP/ Hi-Eff.Red  | 635                                 | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 2.5                     |             |
|                  |              |                      | GaAsP/GaP/ Orange      |                                     |                          |         |         |          |                               |      |                         |             |
|                  | BD-E286RD    | BD-F286RD            | GaAlAs/ SH Super Red   | 660                                 | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 5.0                     |             |
| BD-E28DRD        | BD-F28DRD    | GaAlAs/ DH Super Red | 660                    | 20                                  | 80                       | 30      | 150     | 1.7      | 2.5                           | 6.0  |                         |             |
| 0.30" Dual-Digit | BD-A301ND    | BD-C301ND            | GaAsP/Red              | 655                                 | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.6                     | DD-02       |
|                  | BD-A305ND    | BD-C305ND            | GaP/ Bright Red        | 700                                 | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.2                     |             |
|                  | BD-A305NE    | BD-C305NE            |                        |                                     |                          |         |         |          |                               |      |                         |             |
|                  | BD-A302ND    | BD-C302ND            | GaP/ Green             | 568                                 | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                  | BD-A303ND    | BD-C303ND            | GaAsP/GaP/ Yellow      | 585                                 | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                  | BD-A304ND    | BD-C304ND            | GaAsP/GaP/ Hi-Eff.Red  | 635                                 | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                  |              |                      | GaAsP/GaP/ Orange      |                                     |                          |         |         |          |                               |      |                         |             |
|                  | BD-A306ND    | BD-C306ND            | GaAlAs/ SH Super Red   | 660                                 | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 6.0                     |             |
| BD-A30DND        | BD-C30DND    | GaAlAs/ DH Super Red | 660                    | 20                                  | 80                       | 30      | 150     | 1.7      | 2.5                           | 7.0  |                         |             |
| 0.30" Dual-Digit | BD-A301ND-A  | BD-C301ND-A          | GaAsP/Red              | 655                                 | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.6                     | DD-03       |
|                  | BD-A305ND-A  | BD-C305ND-A          | GaP/ Bright Red        | 700                                 | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.2                     |             |
|                  | BD-A305NE-A  | BD-C305NE-A          |                        |                                     |                          |         |         |          |                               |      |                         |             |
|                  | BD-A302ND-A  | BD-C302ND-A          | GaP/ Green             | 568                                 | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                  | BD-A303ND-A  | BD-C303ND-A          | GaAsP/GaP/ Yellow      | 585                                 | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                  | BD-A304ND-A  | BD-C304ND-A          | GaAsP/GaP/ Hi-Eff.Red  | 635                                 | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                  |              |                      | GaAsP/GaP/ Orange      |                                     |                          |         |         |          |                               |      |                         |             |
|                  | BD-A306ND-A  | BD-C306ND-A          | GaAlAs/ SH Super Red   | 660                                 | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 6.0                     |             |
| BD-A30DND-A      | BD-C30DND-A  | GaAlAs/ DH Super Red | 660                    | 20                                  | 80                       | 30      | 150     | 1.7      | 2.5                           | 7.0  |                         |             |
| 0.30" Dual-Digit | BD-E301RD    | BD-F301RD            | GaAsP/Red              | 655                                 | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.6                     | DD-04       |
|                  | BD-E305RD    | BD-F305RD            | GaP/ Bright Red        | 700                                 | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.2                     |             |
|                  | BD-E305RE    | BD-F305RE            |                        |                                     |                          |         |         |          |                               |      |                         |             |
|                  | BD-E302RD    | BD-F302RD            | GaP/ Green             | 568                                 | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                  | BD-E303RD    | BD-F303RD            | GaAsP/GaP/ Yellow      | 585                                 | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                  | BD-E304RD    | BD-F304RD            | GaAsP/GaP/ Hi-Eff.Red  | 635                                 | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                  |              |                      | GaAsP/GaP/ Orange      |                                     |                          |         |         |          |                               |      |                         |             |
|                  | BD-E306RD    | BD-F306RD            | GaAlAs/ SH Super Red   | 660                                 | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 6.0                     |             |
| BD-E30DRD        | BD-F30DRD    | GaAlAs/ DH Super Red | 660                    | 20                                  | 80                       | 30      | 150     | 1.7      | 2.5                           | 7.0  |                         |             |
| 0.30" Dual-Digit | BD-E301RD-A  | BD-F301RD-A          | GaAsP/Red              | 655                                 | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.6                     | DD-05       |
|                  | BD-E305RD-A  | BD-F305RD-A          | GaP/ Bright Red        | 700                                 | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.2                     |             |
|                  | BD-E305RE-A  | BD-F305RE-A          |                        |                                     |                          |         |         |          |                               |      |                         |             |
|                  | BD-E302RD-A  | BD-F302RD-A          | GaP/ Green             | 568                                 | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                  | BD-E303RD-A  | BD-F303RD-A          | GaAsP/GaP/ Yellow      | 585                                 | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                  | BD-E304RD-A  | BD-F304RD-A          | GaAsP/GaP/ Hi-Eff.Red  | 635                                 | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                  |              |                      | GaAsP/GaP/ Orange      |                                     |                          |         |         |          |                               |      |                         |             |
|                  | BD-E306RD-A  | BD-F306RD-A          | GaAlAs/ SH Super Red   | 660                                 | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 6.0                     |             |
| BD-E30DRD-A      | BD-F30DRD-A  | GaAlAs/ DH Super Red | 660                    | 20                                  | 80                       | 30      | 150     | 1.7      | 2.5                           | 7.0  |                         |             |
| 0.30" Dual-Digit | BD-E301RD-B  | BD-F301RD-B          | GaAsP/Red              | 655                                 | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.6                     | DD-06       |
|                  | BD-E305RD-B  | BD-F305RD-B          | GaP/ Bright Red        | 700                                 | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.2                     |             |
|                  | BD-E305RE-B  | BD-F305RE-B          |                        |                                     |                          |         |         |          |                               |      |                         |             |
|                  | BD-E302RD-B  | BD-F302RD-B          | GaP/ Green             | 568                                 | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                  | BD-E303RD-B  | BD-F303RD-B          | GaAsP/GaP/ Yellow      | 585                                 | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                  | BD-E304RD-B  | BD-F304RD-B          | GaAsP/GaP/ Hi-Eff.Red  | 635                                 | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                  |              |                      | GaAsP/GaP/ Orange      |                                     |                          |         |         |          |                               |      |                         |             |
|                  | BD-E306RD-B  | BD-F306RD-B          | GaAlAs/ SH Super Red   | 660                                 | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 6.0                     |             |
| BD-E30DRD-B      | BD-F30DRD-B  | GaAlAs/ DH Super Red | 660                    | 20                                  | 80                       | 30      | 150     | 1.7      | 2.5                           | 7.0  |                         |             |



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7-segment

|                                                                |                                                                |
|----------------------------------------------------------------|----------------------------------------------------------------|
| <p><b>DD-01</b> <b>BD-<math>\frac{E}{F}</math> 28xRD</b></p>   | <p><b>DD-02</b> <b>BD-<math>\frac{A}{C}</math> 30xND</b></p>   |
| <p><b>DD-03</b> <b>BD-<math>\frac{A}{C}</math> 30xND-A</b></p> | <p><b>DD-04</b> <b>BD-<math>\frac{E}{F}</math> 30xRD</b></p>   |
| <p><b>DD-05</b> <b>BD-<math>\frac{E}{F}</math> 30xRD-A</b></p> | <p><b>DD-06</b> <b>BD-<math>\frac{E}{F}</math> 30xRD-B</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.

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