



# Single Digit LED Displays BS-A/C, BF-A/C Series

16-segment, 7-segment,  $\pm 1$  overflow

| 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. |                         |             |
| 0.50" Alpha-Numeric Displays | BS-A561RD    | BS-C561RD            | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.7                     | SD-25       |
|                              | BS-A565RD    | BS-C565RD            | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.5                     |             |
|                              | BS-A565RE    | BS-C565RE            |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                              | BS-A562RD    | BS-C562RD            | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.5                     |             |
|                              | BS-A563RD    | BS-C563RD            | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.5                     |             |
|                              | BS-A564RD    | BS-C564RD            | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.5                     |             |
|                              |              | GaAsP/GaP/ Orange    |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                              | BS-A566RD    | BS-C566RD            | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 6.5                     |             |
|                              | BS-A56DRD    | BS-C56DRD            | GaAlAs/ DH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.5                     |             |
|                              | BS-A561RD-A  | BS-C561RD-A          | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.7                     | SD-26       |
|                              | BS-A565RD-A  | BS-C565RD-A          | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.5                     |             |
|                              | BS-A565RE-A  | BS-C565RE-A          |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                              | BS-A562RD-A  | BS-C562RD-A          | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.5                     |             |
|                              | BS-A563RD-A  | BS-C563RD-A          | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.5                     |             |
|                              | BS-A564RD-A  | BS-C564RD-A          | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.5                     |             |
|                              |              | GaAsP/GaP/ Orange    |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                              | BS-A566RD-A  | BS-C566RD-A          | GaAlAs/ SH Super Red   | 660                               | 20                       | 60      | 30      | 150      | 1.7                           | 2.5  | 6.5                     |             |
|                              | BS-A56DRD-A  | BS-C56DRD-A          | GaAlAs/ DH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.5                     |             |
| 0.52" Single-Digit           | BS-A531RD    | BS-C531RD            | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.0                     | SD-27       |
|                              | BS-A535RD    | BS-C535RD            | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.5                     |             |
|                              | BS-A535RE    | BS-C535RE            |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                              | BS-A532RD    | BS-C532RD            | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                              | BS-A533RD    | BS-C533RD            | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                              | BS-A534RD    | BS-C534RD            | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                              |              | GaAsP/GaP/ Orange    |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                              | BS-A536RD    | BS-C536RD            | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
|                              | BS-A53DRD    | BS-C53DRD            | GaAlAs/ DH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 8.0                     |             |
|                              | BS-A541RD    | BS-C541RD            | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.0                     | SD-28       |
|                              | BS-A545RD    | BS-C545RD            | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.5                     |             |
|                              | BS-A545RE    | BS-C545RE            |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                              | BS-A542RD    | BS-C542RD            | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                              | BS-A543RD    | BS-C543RD            | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                              | BS-A544RD    | BS-C544RD            | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                              |              | GaAsP/GaP/ Orange    |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                              | BS-A546RD    | BS-C546RD            | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
|                              | BS-A54DRD    | BS-C54DRD            | GaAlAs/ DH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 8.0                     |             |
| 0.56" Single-Digit           | BS-A511RD    | BS-C511RD            | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.0                     | SD-29       |
|                              | BS-A515RD    | BS-C515RD            | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.5                     |             |
|                              | BS-A515RE    | BS-C515RE            |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                              | BS-A512RD    | BS-C512RD            | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                              | BS-A513RD    | BS-C513RD            | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                              | BS-A514RD    | BS-C514RD            | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                              |              | GaAsP/GaP/ Orange    |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                              | BS-A516RD    | BS-C516RD            | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
| BS-A51DRD                    | BS-C51DRD    | GaAlAs/ DH Super Red | 660                    | 20                                | 80                       | 30      | 150     | 1.7      | 2.5                           | 8.0  |                         |             |
| 0.56" Overflow Single-Digit  | BF-A511RD    | BF-C511RD            | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.0                     | SD-30       |
|                              | BF-A515RD    | BF-C515RD            | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.5                     |             |
|                              | BF-A515RE    | BF-C515RE            |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                              | BF-A512RD    | BF-C512RD            | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                              | BF-A513RD    | BF-C513RD            | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                              | BF-A514RD    | BF-C514RD            | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                              |              | GaAsP/GaP/ Orange    |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                              | BF-A516RD    | BF-C516RD            | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
| BF-A51DRD                    | BF-C51DRD    | GaAlAs/ DH Super Red | 660                    | 20                                | 80                       | 30      | 150     | 1.7      | 2.5                           | 8.0  |                         |             |



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16-segment, 7-segment,  $\pm 1$  overflow

|                                                 |                                                   |
|-------------------------------------------------|---------------------------------------------------|
| <p><b>SD-25</b> <b>BS-A<sub>56</sub>xRD</b></p> | <p><b>SD-26</b> <b>BS-A<sub>56</sub>xRD-A</b></p> |
| <p><b>SD-27</b> <b>BS-A<sub>53</sub>xRD</b></p> | <p><b>SD-28</b> <b>BS-A<sub>54</sub>xRD</b></p>   |
| <p><b>SD-29</b> <b>BS-A<sub>51</sub>xRD</b></p> | <p><b>SD-30</b> <b>BF-A<sub>51</sub>xRD</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.

**AMERICAN BRIGHT**