



# Single Digit LED Displays BS-A/C, BF-U 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. |                         |             |
| 0.56" Single-Digit          | BS-A551RD    | BS-C551RD             | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.0                     | SD-31       |
|                             | BS-A555RD    | BS-C555RD             | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.5                     |             |
|                             | BS-A555RE    | BS-C555RE             |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                             | BS-A552RD    | BS-C552RD             | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                             | BS-A553RD    | BS-C553RD             | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                             | BS-A554RD    | BS-C554RD             | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                             |              |                       | GaAsP/GaP/ Orange      |                                   |                          |         |         |          |                               |      |                         |             |
|                             | BS-A556RD    | BS-C556RD             | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
| BS-A55DRD                   | BS-C55DRD    | GaAlAs/ DH Super Red  | 660                    | 20                                | 80                       | 30      | 150     | 1.7      | 2.5                           | 8.0  |                         |             |
| 0.56" Single-Digit          | BS-A551RD-B  | BS-C551RD-B           | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.0                     | SD-32       |
|                             | BS-A555RD-B  | BS-C555RD-B           | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.5                     |             |
|                             | BS-A555RE-B  | BS-C555RE-B           |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                             | BS-A552RD-B  | BS-C552RD-B           | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                             | BS-A553RD-B  | BS-C553RD-B           | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                             | BS-A554RD-B  | BS-C554RD-B           | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                             |              |                       | GaAsP/GaP/ Orange      |                                   |                          |         |         |          |                               |      |                         |             |
|                             | BS-A556RD-B  | BS-C556RD-B           | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
| BS-A55DRD-B                 | BS-C55DRD-B  | GaAlAs/ DH Super Red  | 660                    | 20                                | 80                       | 30      | 150     | 1.7      | 2.5                           | 8.0  |                         |             |
| 0.60" Single-Digit          | BS-A601RD    | BS-C601RD             | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.2                     | SD-33       |
|                             | BS-A605RD    | BS-C605RD             | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.5                     |             |
|                             | BS-A605RE    | BS-C605RE             |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                             | BS-A602RD    | BS-C602RD             | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                             | BS-A603RD    | BS-C603RD             | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.5                     |             |
|                             | BS-A604RD    | BS-C604RD             | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                             |              |                       | GaAsP/GaP/ Orange      |                                   |                          |         |         |          |                               |      |                         |             |
|                             | BS-A606RD    | BS-C606RD             | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
| BS-A60DRD                   | BS-C60DRD    | GaAlAs/ DH Super Red  | 660                    | 20                                | 80                       | 30      | 150     | 1.7      | 2.5                           | 8.5  |                         |             |
| 0.80" Single-Digit          | BS-A811RD    | BS-C811RD             | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.3                     | SD-34       |
|                             | BS-A815RD    | BS-C815RD             | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.6                     |             |
|                             | BS-A815RE    | BS-C815RE             |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                             | BS-A812RD    | BS-C812RD             | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.2                     |             |
|                             | BS-A813RD    | BS-C813RD             | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.2                     |             |
|                             | BS-A814RD    | BS-C814RD             | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.2                     |             |
|                             |              |                       | GaAsP/GaP/ Orange      |                                   |                          |         |         |          |                               |      |                         |             |
|                             | BS-A816RD    | BS-C816RD             | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.5                     |             |
| BS-A81FRD                   | BS-C81FRD    | GaAlAs/ DDH Super Red | 660                    | 20                                | 80                       | 30      | 150     | 2.0      | 2.5                           | 12.5 |                         |             |
| 0.80" Overflow Single-Digit | BF-U811RD    |                       | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.3                     | SD-35       |
|                             | BF-U815RD    |                       | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.6                     |             |
|                             | BF-U815RE    |                       |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                             | BF-U812RD    |                       | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.2                     |             |
|                             | BF-U813RD    |                       | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.2                     |             |
|                             | BF-U814RD    |                       | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.2                     |             |
|                             |              |                       | GaAsP/GaP/ Orange      |                                   |                          |         |         |          |                               |      |                         |             |
|                             | BF-U816RD    |                       | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.5                     |             |
| BF-U81DRD                   |              | GaAlAs/ DH Super Red  | 660                    | 20                                | 80                       | 30      | 150     | 1.7      | 2.5                           | 9.0  |                         |             |
| Alpha-Numeric Single-Digit  | BS-A821RD    | BS-C821RD             | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 1.3                     | SD-36       |
|                             | BS-A825RD    | BS-C825RD             | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.6                     |             |
|                             | BS-A825RE    | BS-C825RE             |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                             | BS-A822RD    | BS-C822RD             | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.2                     |             |
|                             | BS-A823RD    | BS-C823RD             | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.2                     |             |
|                             | BS-A824RD    | BS-C824RD             | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.2                     |             |
|                             |              |                       | GaAsP/GaP/ Orange      |                                   |                          |         |         |          |                               |      |                         |             |
|                             | BS-A826RD    | BS-C826RD             | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.5                     |             |
| BS-A82DRD                   | BS-C82DRD    | GaAlAs/ DH Super Red  | 660                    | 20                                | 80                       | 30      | 150     | 1.7      | 2.5                           | 9.0  |                         |             |



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

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

|                                                                                                                           |                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>SD-31</b> <b>BS-A<sub>55</sub>xRD</b></p> <p>BS-A<sub>55</sub>xRD<br/>3.8</p> <p>BS-C<sub>55</sub>xRD<br/>3.8</p>   | <p><b>SD-32</b> <b>BS-A<sub>55</sub>xRD-B</b></p> <p>BS-A<sub>55</sub>xRD-B<br/>3.8</p> <p>BS-C<sub>55</sub>xRD-B<br/>3.8</p>       |
| <p><b>SD-33</b> <b>BS-A<sub>60</sub>xRD</b></p> <p>BS-A<sub>60</sub>xRD<br/>5.10</p> <p>BS-C<sub>60</sub>xRD<br/>5.10</p> | <p><b>SD-34</b> <b>BS-A<sub>81</sub>xRD</b></p> <p>BS-A<sub>81</sub>xRD<br/>3,5,11,16</p> <p>BS-C<sub>81</sub>xRD<br/>3,5,11,16</p> |
| <p><b>SD-35</b> <b>BF-U<sub>81</sub>xRD</b></p> <p>BS-A<sub>82</sub>xRD<br/>11</p>                                        | <p><b>SD-36</b> <b>BS-A<sub>82</sub>xRD</b></p>                                                                                     |

NOTES: 1.All Dimensions are in millimeters( inches).

3.Specifications are subject to change without notice.

2.Tolerance is  $\pm 0.25\text{mm}(.010^\circ)$ .

4.NP:No Pin. 5.NC:No Connect.

**AMERICAN BRIGHT**

(714) 257-0800 FAX (714) 257-1310 • © 2000 American Bright Optoelectronics Corporation. Specifications subject to change without notice. **121**