



# Single Digit LED Displays BS-A/C 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 $\lambda_p$ (nm) | $\Delta \lambda$ (nm)    | Pd (mw) | If (mA) | Ifp (mA) | Vf (v)                        |      | Iv. Typ. Per.Seg. (mcd) |             |
|                    |              |                |                        |                                   |                          |         |         |          | Typ.                          | Max. |                         |             |
| 0.30" Single-Digit | BS-A311RD    | BS-C311RD      | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.6                     | SD-07       |
|                    | BS-A315RD    | BS-C315RD      | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.2                     |             |
|                    | BS-A315RE    | BS-C315RE      |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                    | BS-A312RD    | BS-C312RD      | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                    | BS-A313RD    | BS-C313RD      | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                    | BS-A314RD    | BS-C314RD      | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                    |              |                | GaAsP/GaP/ Orange      |                                   |                          |         |         |          |                               |      |                         |             |
|                    | BS-A316RD    | BS-C316RD      | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 6.0                     |             |
|                    | BS-A31DRD    | BS-C31DRD      | GaAlAs/ DH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
|                    | BS-A311RD-A  | BS-C311RD-A    | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.6                     | SD-08       |
|                    | BS-A315RD-A  | BS-C315RD-A    | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.2                     |             |
|                    | BS-A315RE-A  | BS-C315RE-A    |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                    | BS-A312RD-A  | BS-C312RD-A    | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                    | BS-A313RD-A  | BS-C313RD-A    | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                    | BS-A314RD-A  | BS-C314RD-A    | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                    |              |                | GaAsP/GaP/ Orange      |                                   |                          |         |         |          |                               |      |                         |             |
|                    | BS-A316RD-A  | BS-C316RD-A    | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 6.0                     |             |
|                    | BS-A31DRD-A  | BS-C31DRD-A    | GaAlAs/ DH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
|                    | BS-A311RD-B  | BS-C311RD-B    | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.6                     | SD-09       |
|                    | BS-A315RD-B  | BS-C315RD-B    | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.2                     |             |
|                    | BS-A315RE-B  | BS-C315RE-B    |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                    | BS-A312RD-B  | BS-C312RD-B    | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                    | BS-A313RD-B  | BS-C313RD-B    | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                    | BS-A314RD-B  | BS-C314RD-B    | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                    |              |                | GaAsP/GaP/ Orange      |                                   |                          |         |         |          |                               |      |                         |             |
|                    | BS-A316RD-B  | BS-C316RD-B    | GaAlAs/ SH Super Red   | 660                               | 20                       | 60      | 30      | 150      | 1.7                           | 2.5  | 6.0                     |             |
|                    | BS-A31DRD-B  | BS-C31DRD-B    | GaAlAs/ DH Super Red   | 660                               | 20                       | 60      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
|                    | BS-A331RD    | BS-C331RD      | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.6                     | SD-10       |
|                    | BS-A335RD    | BS-C335RD      | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.2                     |             |
|                    | BS-A335RE    | BS-C335RE      |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                    | BS-A332RD    | BS-C332RD      | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                    | BS-A333RD    | BS-C333RD      | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                    | BS-A334RD    | BS-C334RD      | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                    |              |                | GaAsP/GaP/ Orange      |                                   |                          |         |         |          |                               |      |                         |             |
|                    | BS-A336RD    | BS-C336RD      | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 6.0                     |             |
|                    | BS-A33DRD    | BS-C33DRD      | GaAlAs/ DH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
| 0.31" Single-Digit | BS-A361RD    | BS-C361RD      | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.6                     | SD-11       |
|                    | BS-A365RD    | BS-C365RD      | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.2                     |             |
|                    | BS-A365RE    | BS-C365RE      |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                    | BS-A362RD    | BS-C362RD      | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                    | BS-A363RD    | BS-C363RD      | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                    | BS-A364RD    | BS-C364RD      | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 100     | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                    |              |                | GaAsP/GaP/ Orange      |                                   |                          |         |         |          |                               |      |                         |             |
|                    | BS-A366RD    | BS-C366RD      | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 6.0                     |             |
|                    | BS-A36DRD    | BS-C36DRD      | GaAlAs/ DH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |
| 0.36" Single-Digit | BS-A321RD    | BS-C321RD      | GaAsP/Red              | 655                               | 40                       | 80      | 40      | 200      | 1.7                           | 2.0  | 0.6                     | SD-12       |
|                    | BS-A325RD    | BS-C325RD      | GaP/ Bright Red        | 700                               | 90                       | 40      | 15      | 50       | 2.2                           | 2.5  | 1.2                     |             |
|                    | BS-A325RE    | BS-C325RE      |                        |                                   |                          |         |         |          |                               |      |                         |             |
|                    | BS-A322RD    | BS-C322RD      | GaP/ Green             | 568                               | 30                       | 80      | 30      | 150      | 2.2                           | 2.5  | 3.0                     |             |
|                    | BS-A323RD    | BS-C323RD      | GaAsP/GaP/ Yellow      | 585                               | 35                       | 80      | 30      | 150      | 2.1                           | 2.5  | 2.0                     |             |
|                    | BS-A324RD    | BS-C324RD      | GaAsP/GaP/ Hi-Eff.Red  | 635                               | 45                       | 80      | 30      | 150      | 2.0                           | 2.5  | 3.0                     |             |
|                    |              |                | GaAsP/GaP/ Orange      |                                   |                          |         |         |          |                               |      |                         |             |
|                    | BS-A36RD     | BS-C326RD      | GaAlAs/ SH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 6.0                     |             |
|                    | BS-A32DRD    | BS-C32DRD      | GaAlAs/ DH Super Red   | 660                               | 20                       | 80      | 30      | 150      | 1.7                           | 2.5  | 7.0                     |             |



|                                            |                                            |
|--------------------------------------------|--------------------------------------------|
| <p><b>SD-07 BS-A<sub>31</sub>xRD</b></p>   | <p><b>SD-08 BS-A<sub>31</sub>xRD-A</b></p> |
| <p><b>SD-09 BS-A<sub>31</sub>xRD-B</b></p> | <p><b>SD-10 BS-A<sub>33</sub>xRD</b></p>   |
| <p><b>SD-11 BS-A<sub>36</sub>xRD</b></p>   | <p><b>SD-12 BS-A<sub>32</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.