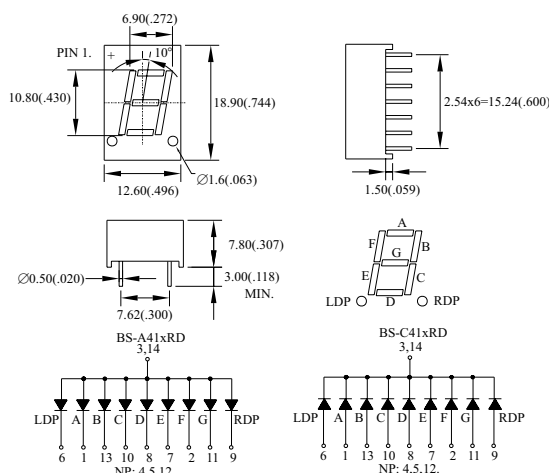
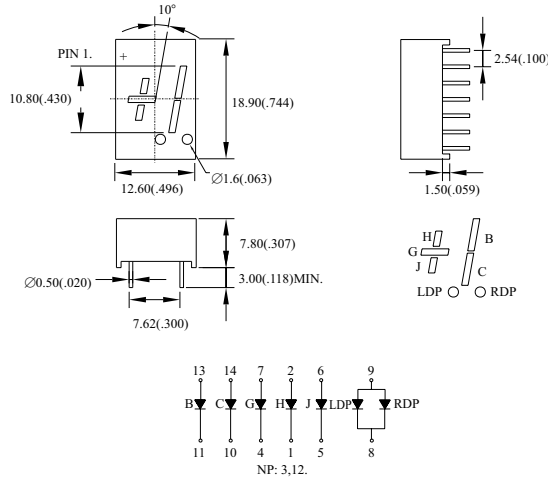
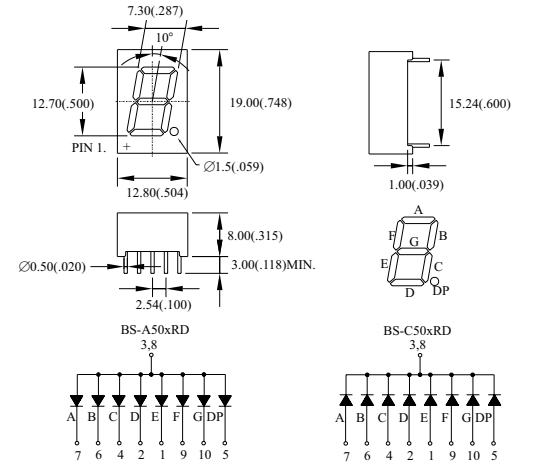
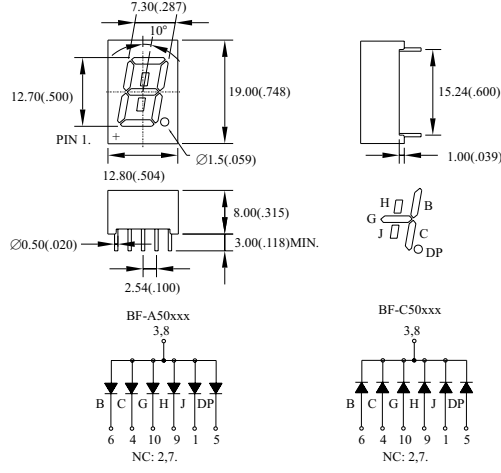
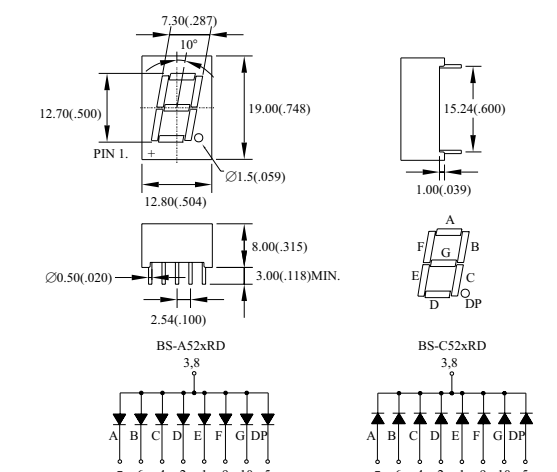
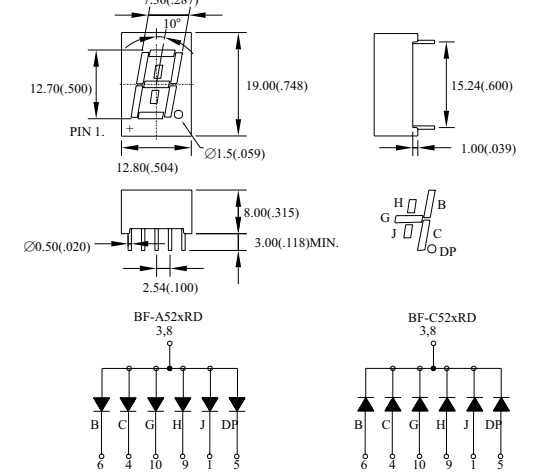




SINGLE DIGIT LED DISPLAYS

| 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 λp(nm) | Δ λ (nm) | Pd (mw) | If (mA) | Ifp (mA) | Vf (v) | | Iv. Typ. Per.Seg. (mcd) | | |
| | | | | | | | | | Typ. | Max. | | | |
| 0.43" Single-Digit | BS-A411RD | BS-C411RD | GaAsP/Red | 655 | 40 | 80 | 40 | 200 | 1.7 | 2.0 | 0.7 | SD-19 | |
| | BS-A415RD | BS-C415RD | GaP/ Bright Red | 700 | 90 | 40 | 15 | 50 | 2.2 | 2.5 | 1.5 | | |
| | BS-A415RE | BS-C415RE | | | | | | | | | | | |
| | BS-A412RD | BS-C412RD | GaP/ Green | 568 | 30 | 80 | 30 | 150 | 2.2 | 2.5 | 3.5 | | |
| | BS-A413RD | BS-C413RD | GaAsP/GaP/ Yellow | 585 | 35 | 80 | 30 | 150 | 2.1 | 2.5 | 2.5 | | |
| | BS-A414RD | BS-C414RD | GaAsP/GaP/ Hi-Eff.Red | 635 | 45 | 80 | 30 | 150 | 2.0 | 2.5 | 3.5 | | |
| | | | GaAsP/GaP/ Orange | | | | | | | | | | |
| | BS-A416RD | BS-C416RD | GaAlAs/ SH Super Red | 660 | 20 | 80 | 30 | 150 | 1.7 | 2.5 | 6.5 | | |
| BS-A41DRD | BS-C41DRD | GaAlAs/ DH Super Red | 660 | 20 | 80 | 30 | 150 | 1.7 | 2.5 | 7.5 | | | |
| 0.43" Overflow Single-Digit | BF-U411RD | | GaAsP/Red | 655 | 40 | 80 | 40 | 200 | 1.7 | 2.0 | 0.7 | SD-20 | |
| | BF-U415RD | | GaP/ Bright Red | 700 | 90 | 40 | 15 | 50 | 2.2 | 2.5 | 1.5 | | |
| | BF-U415RE | | | | | | | | | | | | |
| | BF-U412RD | | GaP/ Green | 568 | 30 | 80 | 30 | 150 | 2.2 | 2.5 | 3.5 | | |
| | BF-U413RD | | GaAsP/GaP/ Yellow | 585 | 35 | 80 | 30 | 150 | 2.1 | 2.5 | 2.5 | | |
| | BF-U414RD | BF-C414RD | GaAsP/GaP/ Hi-Eff.Red | 635 | 45 | 80 | 30 | 150 | 2.0 | 2.5 | 3.5 | | |
| | | | GaAsP/GaP/ Orange | | | | | | | | | | |
| | BF-U416RD | | GaAlAs/ SH Super Red | 660 | 20 | 80 | 30 | 150 | 1.7 | 2.5 | 6.5 | | |
| BF-U41DRD | | GaAlAs/ DH Super Red | 660 | 20 | 80 | 30 | 150 | 1.7 | 2.5 | 7.5 | | | |
| 0.50" Single-Digit | BS-A501RD | BS-C501RD | GaAsP/Red | 655 | 40 | 80 | 40 | 200 | 1.7 | 2.0 | 1.0 | SD-21 | |
| | BS-A505RD | BS-C505RD | GaP/ Bright Red | 700 | 90 | 40 | 15 | 50 | 2.2 | 2.5 | 1.5 | | |
| | BS-A505RE | BS-C505RE | | | | | | | | | | | |
| | BS-A502RD | BS-C502RD | GaP/ Green | 568 | 30 | 80 | 30 | 150 | 2.2 | 2.5 | 3.0 | | |
| | BS-A503RD | BS-C503RD | GaAsP/GaP/ Yellow | 585 | 35 | 80 | 30 | 150 | 2.1 | 2.5 | 2.0 | | |
| | BS-A504RD | BS-C504RD | GaAsP/GaP/ Hi-Eff.Red | 635 | 45 | 80 | 30 | 150 | 2.0 | 2.5 | 3.0 | | |
| | | | GaAsP/GaP/ Orange | | | | | | | | | | |
| | BS-A506RD | BS-C506RD | GaAlAs/ SH Super Red | 660 | 20 | 80 | 30 | 150 | 1.7 | 2.5 | 7.0 | | |
| BS-A50DRD | BS-C50DRD | GaAlAs/ DH Super Red | 660 | 20 | 80 | 30 | 150 | 1.7 | 2.5 | 8.0 | | | |
| 0.50" Overflow Single-Digit | BF-A501RD | | GaAsP/Red | 655 | 40 | 80 | 40 | 200 | 1.7 | 2.0 | 1.0 | SD-22 | |
| | BF-A505RD | | GaP/ Bright Red | 700 | 90 | 40 | 15 | 50 | 2.2 | 2.5 | 1.5 | | |
| | BF-A505RE | | | | | | | | | | | | BF-C505RE |
| | BF-A502RD | | BF-C502RD | GaP/ Green | 568 | 30 | 80 | 30 | 150 | 2.2 | 2.5 | | 3.0 |
| | BF-A503RD | | BF-C503RD | GaAsP/GaP/ Yellow | 585 | 35 | 80 | 30 | 150 | 2.1 | 2.5 | | 2.0 |
| | BF-A504RD | BF-C504RD | GaAsP/GaP/ Hi-Eff.Red | 635 | 45 | 80 | 30 | 150 | 2.0 | 2.5 | 3.0 | | |
| | | | GaAsP/GaP/ Orange | | | | | | | | | | |
| | BF-A506RD | | BF-C506RD | GaAlAs/ SH Super Red | 660 | 20 | 80 | 30 | 150 | 1.7 | 2.5 | | 7.0 |
| BF-A50DRD | | BF-C50DRD | GaAlAs/ DH Super Red | 660 | 20 | 80 | 30 | 150 | 1.7 | 2.5 | 8.0 | | |
| 0.50" Single-Digit | BS-A521RD | BS-C521RD | GaAsP/Red | 655 | 40 | 80 | 40 | 200 | 1.7 | 2.0 | 0.7 | SD-23 | |
| | BS-A525RD | BS-C525RD | GaP/ Bright Red | 700 | 90 | 40 | 15 | 50 | 2.2 | 2.5 | 1.5 | | |
| | BS-A525RE | BS-C525RE | | | | | | | | | | | |
| | BS-A522RD | BS-C522RD | GaP/ Green | 568 | 30 | 80 | 30 | 150 | 2.2 | 2.5 | 3.5 | | |
| | BS-A523RD | BS-C523RD | GaAsP/GaP/ Yellow | 585 | 35 | 80 | 30 | 150 | 2.1 | 2.5 | 2.5 | | |
| | BS-A524RD | BS-C524RD | GaAsP/GaP/ Hi-Eff.Red | 635 | 45 | 80 | 30 | 150 | 2.0 | 2.5 | 3.5 | | |
| | | | GaAsP/GaP/ Orange | | | | | | | | | | |
| | BS-A526RD | BS-C526RD | GaAlAs/ SH Super Red | 660 | 20 | 80 | 30 | 150 | 1.7 | 2.5 | 6.5 | | |
| BS-A52DRD | BS-C52DRD | GaAlAs/ DH Super Red | 660 | 20 | 80 | 30 | 150 | 1.7 | 2.5 | 7.5 | | | |
| 0.50" Overflow Single-Digit | BF-A521RD | | GaAsP/Red | 655 | 40 | 80 | 40 | 200 | 1.7 | 2.0 | 0.7 | SD-24 | |
| | BF-A525RD | | GaP/ Bright Red | 700 | 90 | 40 | 15 | 50 | 2.2 | 2.5 | 1.5 | | |
| | BF-A525RE | | | | | | | | | | | | BF-C525RE |
| | BF-A522RD | | BF-C522RD | GaP/ Green | 568 | 30 | 80 | 30 | 150 | 2.2 | 2.5 | | 3.5 |
| | BF-A523RD | | BF-C523RD | GaAsP/GaP/ Yellow | 585 | 35 | 80 | 30 | 150 | 2.1 | 2.5 | | 2.5 |
| | BF-A524RD | BF-C524RD | GaAsP/GaP/ Hi-Eff.Red | 635 | 45 | 80 | 30 | 150 | 2.0 | 2.5 | 3.5 | | |
| | | | GaAsP/GaP/ Orange | | | | | | | | | | |
| | BF-A526RD | | BF-C526RD | GaAlAs/ SH Super Red | 660 | 20 | 80 | 30 | 150 | 1.7 | 2.5 | | 6.5 |
| BF-A52DRD | | BF-C52DRD | GaAlAs/ DH Super Red | 660 | 20 | 80 | 30 | 150 | 1.7 | 2.5 | 7.5 | | |

SINGLE DIGIT LED DISPLAYS

| SD-19 BS-A _C 41xRD | SD-20 BF-U41xRD |
|---|--|
|  |  |
| SD-21 BS-A _C 50xRD | SD-22 BF-A _C 50xRD |
|  |  |
| SD-23 BS-A _C 52xRD | SD-24 BF-A _C 52xRD |
|  |  |

NOTES: 1.All Dimensions are in millimeters(inches).
 2.Tolerance is ±0.25mm(.010").
 3.Specifications are subject to change without notice.
 4.NP:No Pin. 5.NC:No Connect.