


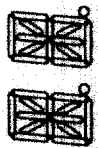


# LED DISPLAY

## ALPHA-NUMERIC LED DISPLAYS

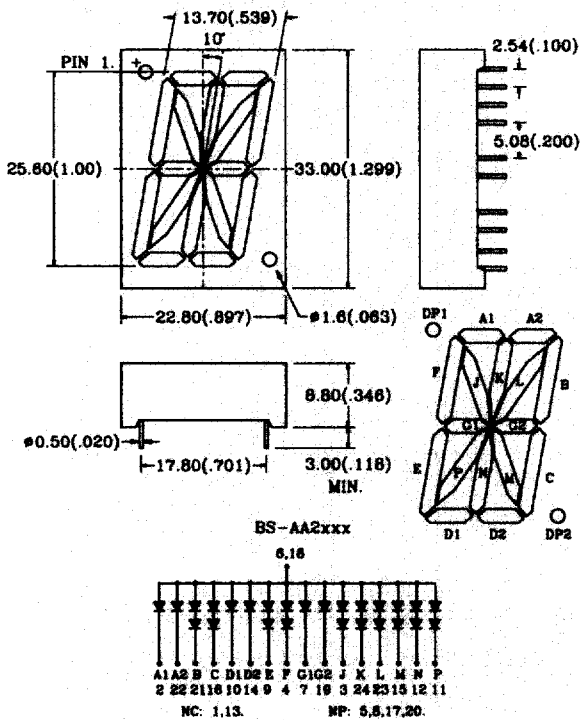
| Digit Size  | Part No.     |                | Chip          |                                 | Absolute Maximum Ratings |         |         |              |        | Electro-optical Data(At 10mA) |                        | Drawing No. |       |
|---|--------------|----------------|---------------|---------------------------------|--------------------------|---------|---------|--------------|--------|-------------------------------|------------------------|-------------|-------|
|   | Common Anode | Common Cathode | Emitted Color | Peak Wave Length $\lambda$ (nm) | $\Delta\lambda$ (nm)     | Pd (mW) | If (mA) | Peak If (mA) | Vf (V) |                               | Iv Typ. Per Seg. (mcd) |             |       |
|   |              |                |               |                                 |                          |         |         |              | Min.   | Max.                          |                        |             |       |
|    | 1.00"        | BS-AA21ND      | BS-CA21ND     | Red                             | 655                      | 40      | 180     | 40           | 200    | 1.6                           | 4.0                    | 2.5         | AD-01 |
|   |              | BS-AA25ND      | BS-CA25ND     | Bright Red                      | 700                      | 90      | 90      | 15           | 50     | 2.1                           | 5.0                    | 3.5         |       |
|   |              | BS-AA25NE      | BS-CA25NE     |                                 |                          |         |         |              |        |                               |                        |             |       |
|   |              | BS-AA22ND      | BS-CA22ND     | Green                           | 568                      | 30      | 180     | 30           | 150    | 2.1                           | 5.0                    | 5.0         |       |
|   |              | BS-AA23ND      | BS-CA23ND     | Yellow                          | 585                      | 35      | 180     | 30           | 150    | 2.0                           | 5.0                    | 4.0         |       |
|   |              | BS-AA24ND      | BS-CA24ND     | Hi-Eff Red                      | 635                      | 45      | 180     | 30           | 150    | 1.9                           | 5.0                    | 5.0         |       |
|   |              |                |               | Orange                          |                          |         |         |              |        |                               |                        |             |       |
| BS-AA26ND   | BS-CA26ND    | Super Red      | 660           | 20                              | 110                      | 20      | 150     | 1.7          | 5.0    | 10.0                          |                        |             |       |
|   | 2.00"        | BS-AD31RD      | BS-CD31RD     | Red                             | 655                      | 40      | 450     | 40           | 200    | 3.2                           | 8.0                    | 4.0         | AD-02 |
|   |              | BS-AD35RD      | BS-CD35RD     | Bright Red                      | 700                      | 90      | 210     | 15           | 50     | 4.2                           | 10.0                   | 6.0         |       |
|   |              | BS-AD35RE      | BS-CD35RE     |                                 |                          |         |         |              |        |                               |                        |             |       |
|   |              | BS-AD32RD      | BS-CD32RD     | Green                           | 568                      | 30      | 420     | 30           | 150    | 4.2                           | 10.0                   | 10.5        |       |
|   |              | BS-AD33RD      | BS-CD33RD     | Yellow                          | 585                      | 35      | 420     | 30           | 150    | 4.0                           | 10.0                   | 7.5         |       |
|   |              | BS-AD34RD      | BS-CD34RD     | Hi-Eff Red                      | 635                      | 45      | 420     | 30           | 150    | 3.8                           | 10.0                   | 8.5         |       |
|   |              |                |               | Orange                          |                          |         |         |              |        |                               |                        |             |       |
| BS-AD36RD   | BS-CD36RD    | Super Red      | 660           | 20                              | 280                      | 20      | 150     | 3.4          | 10.0   | 15.0                          |                        |             |       |
|  | 2.30"        | BS-AD21RD      | BS-CD21RD     | Red                             | 655                      | 40      | 280     | 40           | 200    | 3.2                           | 5.0                    | 5.0         | AD-03 |
|   |              | BS-AD25RD      | BS-CD25RD     | Bright Red                      | 700                      | 90      | 100     | 15           | 50     | 4.2                           | 5.0                    | 8.0         |       |
|   |              | BS-AD25RE      | BS-CD25RE     |                                 |                          |         |         |              |        |                               |                        |             |       |
|   |              | BS-AD22RD      | BS-CD22RD     | Green                           | 568                      | 30      | 210     | 30           | 150    | 4.2                           | 5.0                    | 14.0        |       |
|   |              | BS-AD23RD      | BS-CD23RD     | Yellow                          | 585                      | 35      | 420     | 30           | 150    | 4.0                           | 5.0                    | 11.0        |       |
|   |              | BS-AD24RD      | BS-CD24RD     | Hi-Eff Red                      | 635                      | 45      | 420     | 30           | 150    | 3.8                           | 5.0                    | 12.0        |       |
|   |              |                |               | Orange                          |                          |         |         |              |        |                               |                        |             |       |
| BS-AD26RD   | BS-CD26RD    | Super Red      | 660           | 20                              | 280                      | 20      | 150     | 3.4          | 5.0    | 18.0                          |                        |             |       |
|  | 0.54"        | BD-E521RD      | BD-F521RD     | Red                             | 655                      | 40      | 180     | 40           | 200    | 1.6                           | 2.0                    | 0.5         | AD-04 |
|   |              | BD-E525RD      | BD-F525RD     | Bright Red                      | 700                      | 90      | 90      | 15           | 50     | 2.1                           | 2.5                    | 1.2         |       |
|   |              | BD-E525RE      | BD-F525RE     |                                 |                          |         |         |              |        |                               |                        |             |       |
|   |              | BD-E522RD      | BD-F522RD     | Green                           | 568                      | 30      | 180     | 30           | 150    | 2.1                           | 2.5                    | 2.5         |       |
|   |              | BD-E523RD      | BD-F523RD     | Yellow                          | 585                      | 35      | 180     | 30           | 150    | 2.0                           | 2.5                    | 2.0         |       |
|   |              | BD-E524RD      | BD-F524RD     | Hi-Eff Red                      | 635                      | 45      | 180     | 30           | 150    | 1.9                           | 2.5                    | 2.5         |       |
|   |              |                |               | Orange                          |                          |         |         |              |        |                               |                        |             |       |
| BD-E526RD   | BD-F526RD    | Super Red      | 660           | 20                              | 110                      | 20      | 150     | 1.7          | 2.5    | 6.0                           |                        |             |       |

Remark: \* The average luminous intensity is obtained by summing the luminous intensity of each segment and dividing by total number of segments.

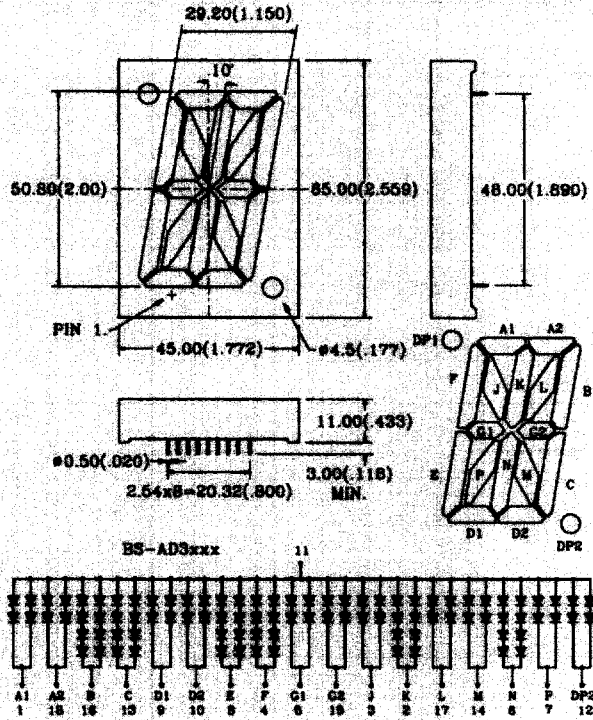
\* Above part numbers are all with black surface and white segment. For part numbers with other surface and segment color combinations, please check the selection guide(part number system).

# LED DISPLAY

## AD-01 BS-AA2xxx Series



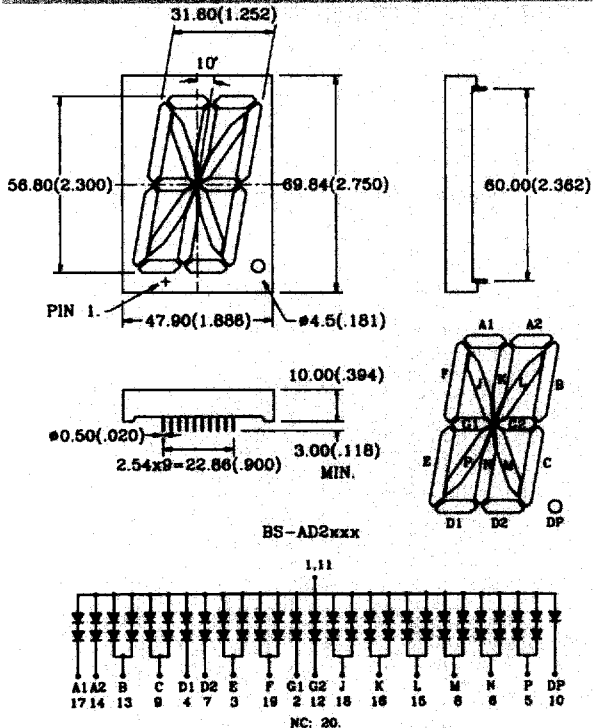
## AD-02 BS-AD3xxx Series



### PACKAGE DIMENSIONS

- NOTES
1. All Dimensions are in millimeters (inches).
  2. Tolerance is  $\pm 0.25\text{mm}$  (.010") unless otherwise specified.
  3. Specifications are subject to change without notice.
  4. NP: No Pin.
  5. NC: No Connect.

## AD-03 BS-AD2xxx Series



## AD-04 BD-E52xxx Series

