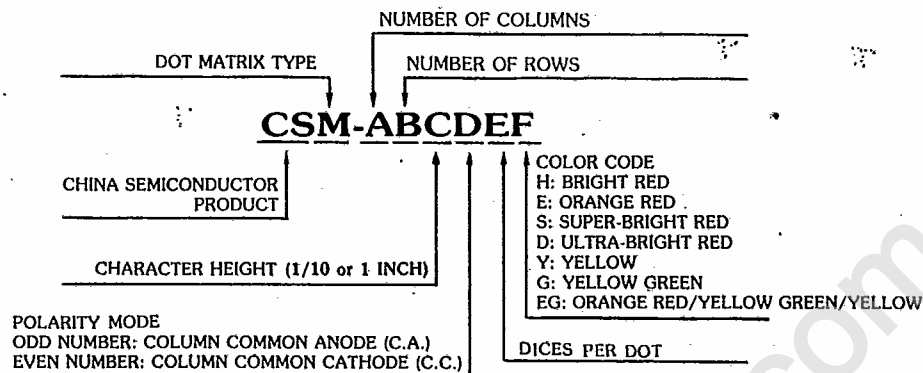


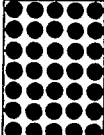
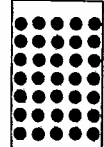
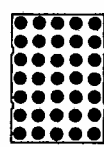
# DOT MATRIX DISPLAY GENERAL INFORMATION

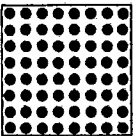
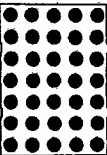
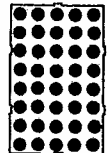
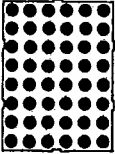
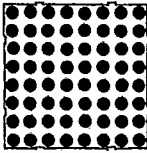
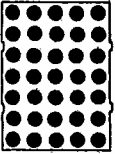
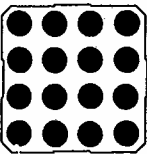
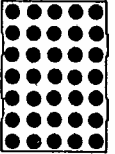
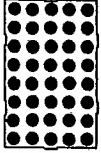
## PART NUMBER SYSTEM



## Electro-Optical Characteristics (Ta = 25°C)

| COLOR            | Peak Emission Wavelength<br>$\lambda_p$ (nm) | Dice Material    | Forward Voltage Per Dice $V_f$ (V) |     | Luminous Intensity Per Dice $I_v$ (ucd) | Test Condition |
|------------------|----------------------------------------------|------------------|------------------------------------|-----|-----------------------------------------|----------------|
|                  |                                              |                  | TYP                                | MAX |                                         |                |
| BRIGHT RED       | 695                                          | GaP/GaP          | 2.0                                | 2.8 | 1,400                                   | $I_f = 20$ mA  |
| ORANGE RED       | 635                                          | GaAsP/GaP        | 2.1                                | 2.8 | 4,000                                   | $I_f = 20$ mA  |
| SUPER-BRIGHT RED | 660                                          | GaAlAs/GaAs (SH) | 1.8                                | 2.5 | 6,000                                   | $I_f = 20$ mA  |
| ULTRA-BRIGHT RED | 660                                          | GaAlAs/GaAs (DH) | 1.8                                | 2.5 | 10,000                                  | $I_f = 20$ mA  |
| YELLOW           | 590                                          | GaAsP/GaP        | 2.1                                | 2.8 | 4,000                                   | $I_f = 20$ mA  |
| YELLOW GREEN     | 570                                          | GaP/GaP          | 2.2                                | 2.8 | 4,000                                   | $I_f = 20$ mA  |

| MATRIX HEIGHT                                                                                             | DOT PITCH/<br>DIAMETER | CSC PART NUMBER : CSM-               |                                      |                                      |                                      |                                      |                          | MODE                         |
|-----------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------|------------------------------|
|                                                                                                           |                        | ORANGE RED                           | SUPER-BRIGHT RED                     | ULTRA-BRIGHT RED                     | YELLOW GREEN                         | YELLOW                               | TRI COLOR                |                              |
| 5×7<br><br>0.7" (17mm) | 2.5 m/m<br>2.0 m/m     | 57031E<br>57041E<br>57071E<br>57081E | 57031S<br>57041S<br>57071S<br>57081S | 57031D<br>57041D<br>57071D<br>57081D | 57031G<br>57041G<br>57071G<br>57081G | 57031Y<br>57041Y<br>57071Y<br>57081Y | N/A<br>N/A<br>N/A<br>N/A | C.A.<br>C.C.<br>C.A.<br>C.C. |
| 5×7<br><br>1.2" (30mm) | 4.6 m/m<br>2.9 m/m     | 57111E<br>57121E                     | 57111S<br>57121S                     | 57111D<br>57121D                     | 57111G<br>57121G                     | 57111Y<br>57121Y                     | N/A<br>57161EG           | C.A.<br>C.C.                 |
| 5×7<br><br>1.2" (30mm) | 4.6 m/m<br>2.9 m/m     | 57131E<br>57141E                     | 57131S<br>57141S                     | 57131D<br>57141D                     | 57131G<br>57141G                     | 57131Y<br>57141Y                     | N/A<br>57181EG           | C.A.<br>C.C.                 |

| MATRIX<br>HEIGHT                                                                                           | DOT<br>PITCH/<br>DIAMETER | CSC PART NUMBER : CSM-                                   |                                                          |                                                          |                                                          |                                                          |                                            | MODE                                         |
|------------------------------------------------------------------------------------------------------------|---------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------|--------------------------------------------|----------------------------------------------|
|                                                                                                            |                           | ORANGE<br>RED                                            | SUPER-<br>BRIGHT<br>RED                                  | ULTRA-<br>BRIGHT<br>RED                                  | YELLOW<br>GREEN                                          | YELLOW                                                   | TRI<br>COLOR                               |                                              |
| 8×8<br> 1.2"<br>(31mm)    | 4.0 m/m<br>2.8 m/m        | 88111E<br>88121E                                         | 88111S<br>88121S                                         | 88111D<br>88121D                                         | 88111G<br>88121G                                         | 88111Y<br>88121Y                                         | N/A<br>88161EG                             | C.A.<br>C.C.                                 |
| 5×8<br> 1.4"<br>(36mm)    | 4.7 m/m<br>2.8 m/m        | 58111E<br>58121E                                         | 58111S<br>58121S                                         | 58111D<br>58121D                                         | 58111G<br>58121G                                         | 58111Y<br>58121Y                                         | N/A<br>58161EG                             | C.A.<br>C.C.                                 |
| 5×7<br> 2.0"<br>(51mm)    | 7.6 m/m<br>5.0 m/m        | 57211E<br>57221E                                         | 57211S<br>57221S                                         | 57211D<br>57221D                                         | 57211G<br>57221G                                         | 57211Y<br>57221Y                                         | N/A<br>57261EG                             | C.A.<br>C.C.                                 |
| 5×8<br> 2.3"<br>(58mm)   | 7.6 m/m<br>5.0 m/m        | 58211E<br>58221E<br>58231E<br>58241E                     | 58211S<br>58221S<br>58231S<br>58241S                     | 58211D<br>58221D<br>58231D<br>58241D                     | 58211G<br>58221G<br>58231G<br>58241G                     | 58211Y<br>58221Y<br>58231Y<br>58241Y                     | N/A<br>58261EG<br>N/A<br>N/A               | C.A.<br>C.C.<br>C.A.<br>C.C.                 |
| 6×8<br> 2.3"<br>(58mm)  | 7.6 m/m<br>5.0 m/m        | 68211E<br>68221E                                         | 68211S<br>68221S                                         | 68211D<br>68221D                                         | 68211G<br>68221G                                         | 68211Y<br>68221Y                                         | N/A<br>68261EG                             | C.A.<br>C.C.                                 |
| 8×8<br> 2.3"<br>(58mm)  | 7.6 m/m<br>5.0 m/m        | 88211E<br>88221E<br>88241E                               | 88211S<br>88221S<br>88241S                               | 88211D<br>88221D<br>88241D                               | 88211G<br>88221G<br>88241G                               | 88211Y<br>88221Y<br>88241Y                               | N/A<br>88261EG<br>N/A                      | C.A.<br>C.C.<br>C.C.                         |
| 5×7<br> 3.0"<br>(76mm)  | 11.4 m/m<br>7.6 m/m       | 57312E<br>57322E<br>57313E<br>57314E                     | 57312S<br>57322S<br>57313S<br>57314S                     | 57312D<br>57322D<br>57313D<br>57314D                     | 57312G<br>57322G<br>57313G<br>57314G                     | 57312Y<br>57322Y<br>57313Y<br>57314Y                     | N/A<br>57362EG                             | C.A.<br>C.C.                                 |
| 4×4<br> 4.0"<br>(102mm) | 27.2 m/m<br>20.0m/m       | 44414E<br>44424E                                         | 44414S<br>44424S                                         | 44414D<br>44424D                                         | 44414G<br>44424G                                         | 44414Y<br>44424Y                                         | N/A<br>44465EG                             | C.A.<br>C.C.                                 |
| 5×7<br> 4.0"<br>(101mm) | 15.2 m/m<br>10.0 m/m      | 57432E<br>57442E<br>57433E<br>57443E<br>57434E<br>57444E | 57432S<br>57442S<br>57433S<br>57443S<br>57434S<br>57444S | 57432D<br>57442D<br>57433D<br>57443D<br>57434D<br>57444D | 57432G<br>57442G<br>57433G<br>57443G<br>57434G<br>57444G | 57432Y<br>57442Y<br>57433Y<br>57443Y<br>57434Y<br>57444Y | N/A<br>57462EG<br>N/A<br>N/A<br>N/A<br>N/A | C.A.<br>C.C.<br>C.A.<br>C.C.<br>C.A.<br>C.C. |
| 5×8<br> 4.6"<br>(117mm) | 15.2 m/m<br>10.0 m/m      | 58432E<br>58442E<br>58433E<br>58443E<br>58434E<br>58444E | 58432S<br>58442S<br>58433S<br>58443S<br>58434S<br>58444S | 58432D<br>58442D<br>58433D<br>58443D<br>58434D<br>58444D | 58432G<br>58442G<br>58433G<br>58443G<br>58434G<br>58444G | 58432Y<br>58442Y<br>58433Y<br>58443Y<br>58434Y<br>58444Y | N/A<br>58462EG<br>N/A<br>N/A<br>N/A<br>N/A | C.A.<br>C.C.<br>C.A.<br>C.C.<br>C.A.<br>C.C. |