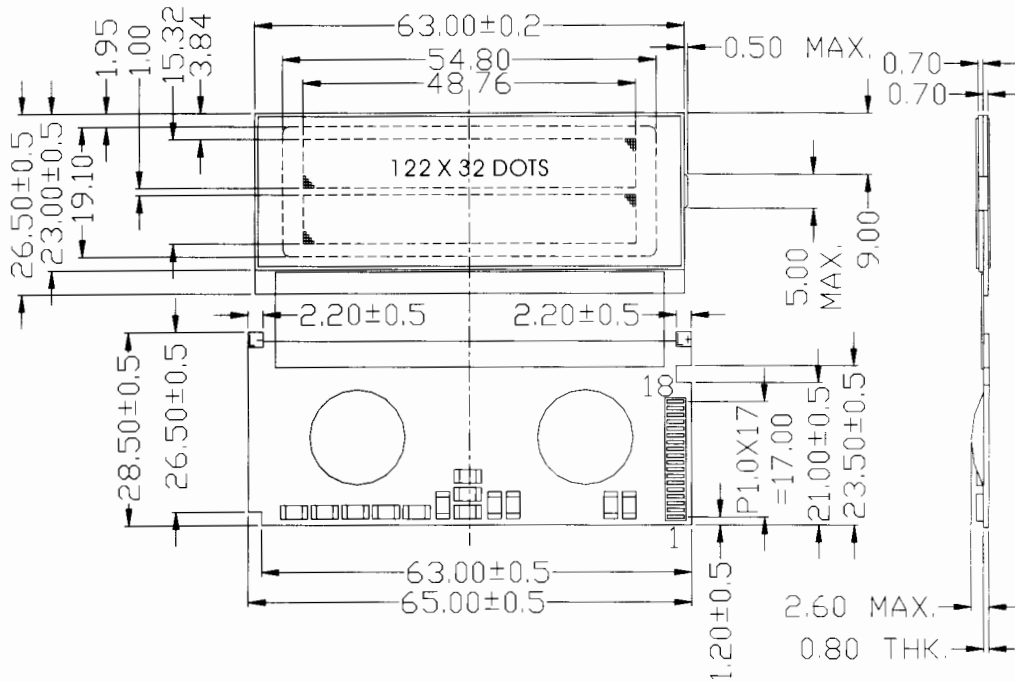
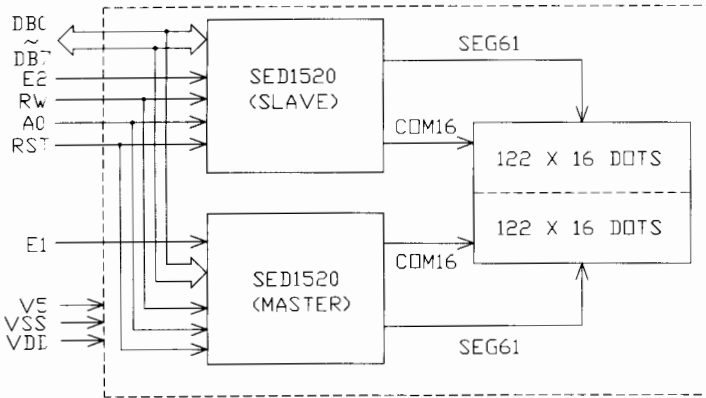


OUTLINE DIMENSION

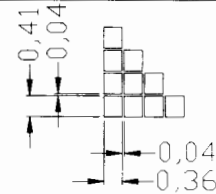


Graphic Type

BLOCK DIAGRAM



DISPLAY PATTERN



MECHANICAL SPECIFICATION

| Item | Dimensions (W) X (H) | Unit |
|--------------|----------------------|------|
| Overall Size | 63.0 X 28.5 | MM |
| View Area | 54.8 X 19.1 | MM |
| Dot Size | 0.36 X 0.41 | MM |
| Dot Pitch | 0.40 X 0.45 | MM |

PIN ASSIGNMENT

| Pin no. | Symbol | Function |
|---------|-----------------|-------------------------|
| 1 | V _{DD} | Power supply (+) |
| 2 | V _{SS} | Power Supply (GND) |
| 3 | V ₅ | Contract Adjust |
| 4 | RST | Reset system |
| 5 | E1 | Enable driver 1 |
| 6 | E2 | Enable driver 2 |
| 7 | R/W | Data read / write |
| 8 | A0 | Data/Instruction signal |
| 9 ~ 16 | DB0 ~ DB7 | Data bus line |
| 17 | NC | No connection |
| 18 | NC | No connection |

ABSOLUTE MAXIMUM RATING

| Item | Symbol | Condition | Min. | Max. | Unit |
|----------------------------|------------------|-----------|------|-----------------|------|
| Supply for logic voltage | V _{DD} | 25°C | 0 | 6.7 | V |
| LCD driving supply voltage | V _{LCD} | 25°C | 0 | 10 | V |
| Input voltage | V _I | 25°C | 0 | V _{DD} | V |

ELECTRICAL CHARACTERISTICS

| Item | Symbol | Condition | Min. | Typical | Max. | Unit |
|---------------------------|----------------------------------|-----------|--------------------|---------|--------------------|------|
| Supply voltage for logic | V _{DD} | --- | 2.7 | 3.0 | 4.5 | V |
| Supply current for logic | I _{DD} | --- | --- | 0.3 | 1 | mA |
| Operation voltage for LCD | V _{DD} - V _O | 0°C | 5.4 | 5.7 | 6.0 | V |
| | | 25°C | 5.2 | 5.5 | 5.8 | V |
| | | 50°C | 4.8 | 5.1 | 5.4 | V |
| Input voltage "H" level | V _{IH} | --- | 0.8V _{DD} | --- | V _{DD} | V |
| Input voltage "L" level | V _{IL} | --- | 0 | --- | 0.2V _{DD} | V |

REMARKS:

- LCD options: STN, FSTN.
- Back light Options: EL Back light feature, other Specs not available on catalog is under request.