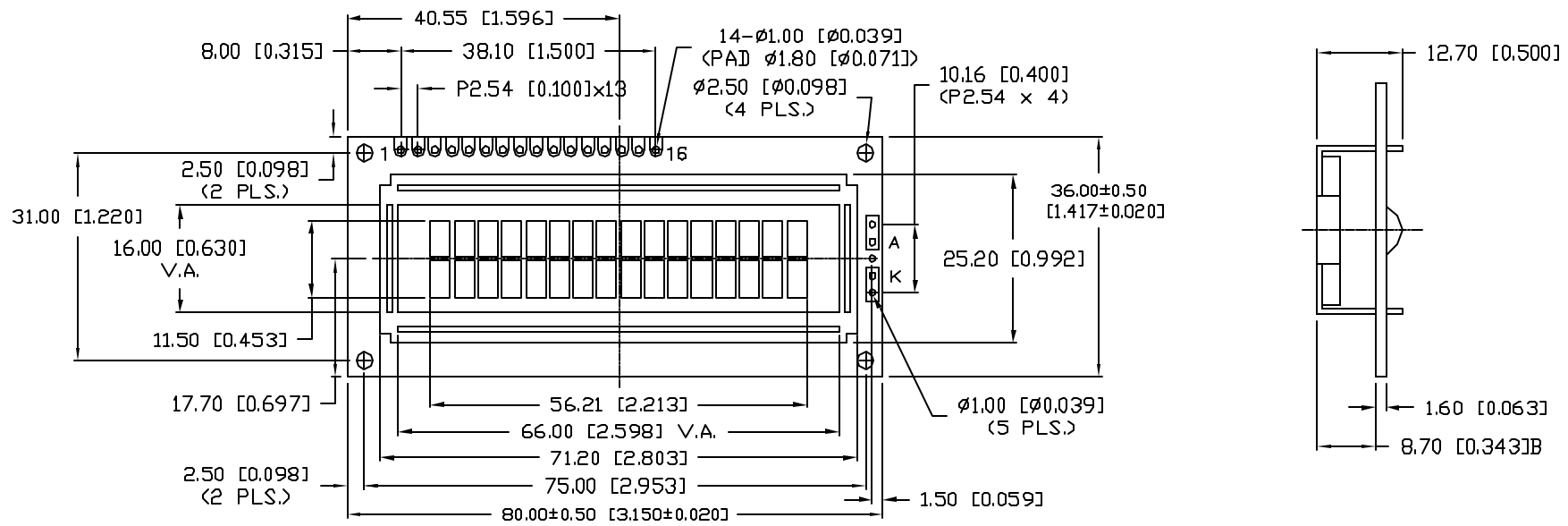
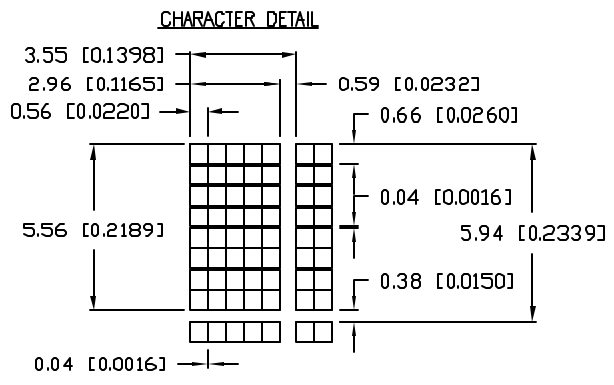


CAUTION: STATIC SENSITIVE DEVICE
FOLLOW PROPER E.S.D. HANDLING PROCEDURES
WHEN WORKING WITH THIS PART.



*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), XX=±0.5 (±0.020), XXX=±0.25 (±0.010), XXXX=±0.127 (±0.005). LEAD SIZE=±0.05 (±0.002), LEAD LENGTH=±0.75 (±0.030). MIN= +DECIMAL PRECISION -0.00 MAX.= +0.00 -DECIMAL PRECISION

| | |
|------|-----------------|
| REV. | PART NUMBER |
| | LCM-S01602DSF/A |

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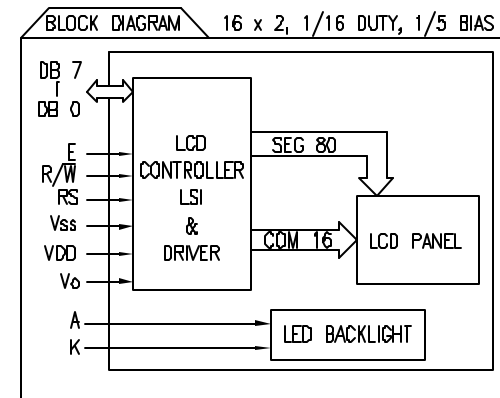
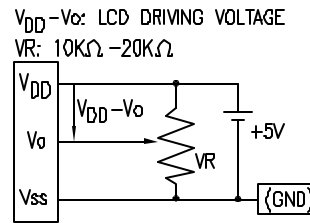
RELIABILITY NOTE
OUR MANY YEARS OF EXPERIENCE DATA ACCUMULATION INDICATE THAT SOLDER HEAT IS A MAJOR CAUSE OF EARLY AND FUTURE FAILURE. PLEASE PAY ATTENTION TO YOUR SOLDERING PROCESS.

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5.56mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX,
STN, TRANSFLECTIVE WITH LED BACKLIGHT,
16 x 2 LCD MODULE, 1/16 DUTY, 1/5 BIAS.

| | | | |
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| DRAWN BY: CT | CHECKED BY: | APPROVED BY: | DATE: 1.22.02 |
| | | | PAGE: 1 OF 2 |
| | | | SCALE: N/A |

| PIN CONFIGURATION | | | | |
|-------------------|-----------------|--------|---|------------------|
| PIN NO. | SYMBOL | LEVEL | FUNCTION | |
| 1 | V _{SS} | - | POWER SUPPLY | |
| 2 | V _{DD} | - | | GND (0V) |
| 3 | V _O | - | | 5V FOR LCD DRIVE |
| 4 | RS | H/L | REGISTER SELECT SIGNAL H: DATA INPUT L: INSTRUCTION INPUT | |
| 5 | R/W | H/L | H: DATA READ (MODULE-->MPU) L: DATA WRITE (MODULE<--MPU) | |
| 6 | E | H,H->L | ENABLE | |
| 7~14 | DB0~DB7 | H/L | DATA BUS--SOFTWARE SELECTABLE 4 OR 8 BIT MODE. | |
| 15 | A | - | ANODE | |
| 16 | K | - | CATHODE | |



| ELECTRICAL CHARACTERISTICS | | V _{DD} =4.7V to 5.3V, T _A =25°C | | | | |
|----------------------------|----------------------------------|---|-----------------------|------|------|---------------------|
| ITEM | SYMBOL | CONDITION | STANDARD VALUE | | | UNIT |
| | | | MIN. | TYP. | MAX. | |
| SUPPLY VOLTAGE FOR LOGIC | V _{DD} -V _{SS} | - | - | 5.0 | - | V |
| SUPPLY CURRENT FOR LOGIC | I _{DD} | V _{DD} =5V | - | 2.0 | 3.0 | mA |
| INPUT VOLTAGE | HIGH | V _{IH} | - | 2.2 | - | V _{DD} V |
| | LOW | V _{IL} | - | 0 | - | 0.6 V |
| OUTPUT VOLTAGE | HIGH | V _{OH} | - | 2.4 | - | V |
| | LOW | V _{OL} | - | - | - | 0.4 V |
| *LED BACKLIGHT | VOLTAGE | V _f | I _f =160mA | - | 4.2 | 4.6 V |
| | CURRENT | I _f | - | - | 160 | - mA |
| | POWER CONSUMPTION | PD | - | - | 656 | - mW |
| | LUMINOUS | L | I _f =160mA | 70 | - | - cd/m ² |
| | COLOR | - | - | - | - | - |

*ONLY APPLIES TO MODULES WITH BACKLIGHT

| ABSOLUTE MAXIMUM RATINGS | | | | | |
|------------------------------|----------------------------------|----------------------|-----------------|-----------------|------|
| ITEM | SYMBOL | TEST CONDITION | STANDARD VALUE | | UNIT |
| | | | MIN | MAX | |
| SUPPLY VOLTAGE FOR LOGIC | V _{DD} -V _{SS} | T _a =25°C | 4.7 | 5.3 | V |
| SUPPLY VOLTAGE FOR LCD DRIVE | V _{DD} -V _O | - | 4.2@50°C | 4.8@0°C | V |
| INPUT VOLTAGE | V _I | T _a =25°C | V _{SS} | V _{DD} | V |
| OPERATING TEMPERATURE | T _{opr} | LCM-S | 0 | 50 | °C |
| STORAGE TEMPERATURE | T _{stg} | LCM-S | -20 | 70 | °C |

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| REV. | PART NUMBER |
| | LCM-S01602DSF/A |
| 5.56mm CHARACTER HEIGHT, 5 x 8 DOT MATRIX, STN, TRANSPARENT WITH LED BACKLIGHT, 16 x 2 LCD MODULE, 1/16 DUTY, 1/5 BIAS. | |

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| | | | SCALE: N/A |