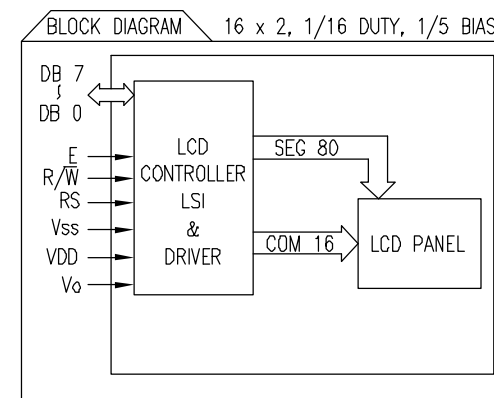
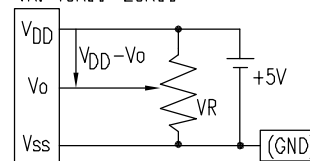


UNCONTROLLED DOCUMENT

| PIN CONFIGURATION |                 |        |                                                                 |
|-------------------|-----------------|--------|-----------------------------------------------------------------|
| PIN NO.           | SYMBOL          | LEVEL  | FUNCTION                                                        |
| 1                 | V <sub>SS</sub> | —      | POWER SUPPLY<br>GND (0V)<br>5V<br>FOR LCD DRIVE                 |
| 2                 | V <sub>DD</sub> | —      |                                                                 |
| 3                 | V <sub>O</sub>  | —      |                                                                 |
| 4                 | RS              | H/L    | REGISTER SELECT SIGNAL<br>H: DATA INPUT<br>L: INSTRUCTION INPUT |
| 5                 | R/W             | H/L    | H: DATA READ (MODULE-->MPU)<br>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                | NC              | —      | NO CONNECTION                                                   |
| 16                | NC              | —      | NO CONNECTION                                                   |

V<sub>DD</sub>-V<sub>O</sub>: LCD DRIVING VOLTAGE  
VR: 10KΩ~20KΩ



| ELECTRICAL CHARACTERISTICS |      | V <sub>DD</sub> =4.7V to 5.3V, T <sub>A</sub> =25°C |                     |                |      |                 |      |
|----------------------------|------|-----------------------------------------------------|---------------------|----------------|------|-----------------|------|
| ITEM                       |      | SYMBOL                                              | CONDITION           | STANDARD VALUE |      |                 | UNIT |
|                            |      |                                                     |                     | MIN.           | TYP. | MAX.            |      |
| SUPPLY VOLTAGE FOR LOGIC   |      | V <sub>DD</sub> -V <sub>SS</sub>                    | —                   | —              | 5.0  | —               | V    |
| SUPPLY CURRENT FOR LOGIC   |      | I <sub>DD</sub>                                     | V <sub>DD</sub> =5V | —              | 2.0  | 3.0             | mA   |
| INPUT VOLTAGE              | HIGH | V <sub>IH</sub>                                     | —                   | 2.2            | —    | V <sub>DD</sub> | V    |
|                            | LOW  | V <sub>IL</sub>                                     | —                   | 0              | —    | 0.6             | V    |
| OUTPUT VOLTAGE             | HIGH | V <sub>OH</sub>                                     | —                   | 2.4            | —    | —               | V    |
|                            | LOW  | V <sub>OL</sub>                                     | —                   | —              | —    | 0.4             | V    |

## ABSOLUTE MAXIMUM RATINGS

| ITEM                         | SYMBOL                           | TEST CONDITION       | STANDARD VALUE  |                 |
|------------------------------|----------------------------------|----------------------|-----------------|-----------------|
|                              |                                  |                      | MIN             | MAX             |
| SUPPLY VOLTAGE FOR LOGIC     | V <sub>DD</sub> -V <sub>SS</sub> | T <sub>a</sub> =25°C | 4.7             | 5.3             |
| SUPPLY VOLTAGE FOR LCD DRIVE | V <sub>DD</sub> -V <sub>O</sub>  | —                    | 4.2@50°C        | 4.8@0°C         |
| INPUT VOLTAGE                | V <sub>I</sub>                   | T <sub>a</sub> =25°C | V <sub>SS</sub> | V <sub>DD</sub> |
| OPERATING TEMPERATURE        | T <sub>opr</sub>                 | LCM-S                | 0               | 50              |
| STORAGE TEMPERATURE          | T <sub>stg</sub>                 | LCM-S                | -20             | 70              |

\*UNLESS OTHERWISE SPECIFIED TOLERANCES PER DECIMAL PRECISION ARE: X=±1 (±0.039), X.X=±0.5 (±0.020), X.XX=±0.25 (±0.010), X.XXX=±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-S01602DSR/M

16 x 2 CHARACTER LCD MODULE, STN, REFLECTIVE.  
1/16 DUTY, 1/5 BIAS.

## CONFIDENTIAL INFORMATION

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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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PAGE: 2 OF 2

SCALE: N/A

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