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| G12232-25 | 122 DOTS×32 DOTS | 1/32 DUTY | 1/6 BIAS |
|------------------|-------------------------|------------------|-----------------|

FEATURE:

| LCD TYPE | STN/FSTN |
|----------------------|--------------------------------|
| LCM BACKLIGHT TYPE | --- |
| LCM CONTROLLER IC | BUILT IN SED1520 OR EQUIVALENT |
| POWER SUPPLY FOR LCM | DC +5.0V |
| LED BACKLIGHT INPUT | DC +5.0V |
| EL BACKLIGHT INPUT | ---- |
| EL INVERTER | ---- |
| FL BACKLIGHT INPUT | - |
| FL INVERTER | - |
| LCM DIMENSION | 76.6×28.0×13.0 mm |
| LCM VIEWING AREA | 60.0×18.0 mm |
| LCD DOT SIZE | 0.35×0.40 mm |
| LCD DOT PITCH | 0.39×0.44 mm |

3.ABSOLUTE MAXIMUM RATINGS:

| ITEM | SYM | MIN | TYP | MAX | UNIT |
|-----------------------|---------|-----|-----|-----|------|
| OPERATING TEMP. | Top | -20 | - | +70 | |
| STORAGE TEMP. | Tst | -30 | - | +80 | |
| INPUT VOLTAGE | Vi | Vss | - | VDD | V |
| SUPPLY VOL. FOR LOGIC | VDD-VSS | - | 5.0 | 6.5 | V |
| SUPPLY VOL. FOR LCD | VDD-Vo | - | - | 6.5 | V |

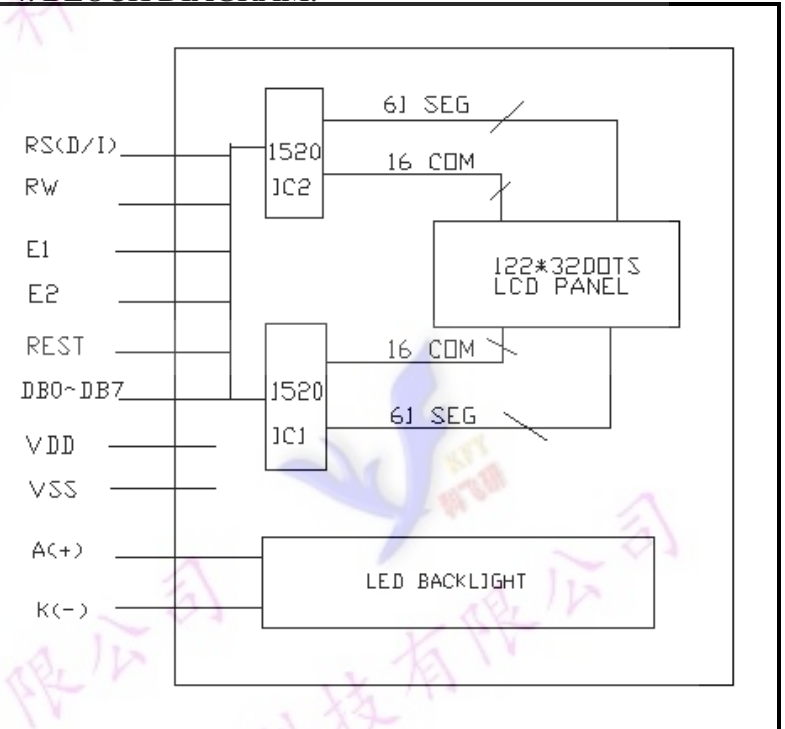
5.INTERFACE PIN CONNECTIONS:

| NO | SYM | LEVEL | FUNCTION |
|----|------|-------|----------------------------------|
| 1 | VDD | - | +5V |
| 2 | VSS | - | 0V |
| 3 | Vo | - | CONTRAST ADJ. |
| 4 | RES | L | RESET SIGNAL |
| 5 | E1 | H,H→L | Chip select for IC1 |
| 6 | E2 | H,H→L | Chip select for IC2 |
| 7 | R/W | H/L | H:READ(LCM MPU) L:WRITE(MPU LCM) |
| 8 | RS | H/L | H:DATA, L:INSTRUCTION CODE |
| 9 | DB0 | H/L | DATA BIT0 |
| 10 | DB1 | H/L | DATA BIT1 |
| 11 | DB2 | H/L | DATA BIT2 |
| 12 | DB3 | H/L | DATA BIT3 |
| 13 | DB4 | H/L | DATA BIT4 |
| 14 | DB5 | H/L | DATA BIT5 |
| 15 | DB6 | H/L | DATA BIT6 |
| 16 | DB7 | H/L | DATA BIT7 |
| 17 | A(+) | +5.0V | BACKLIGHT(+) |
| 18 | K(-) | 0V | BACKLIGHT(-) |

2.ELECTRICAL CHARACTERISTICS:

| ITEM | SYM | CONDITION | MIN | TYP | MAX | UNIT |
|-------------------------------|---------|-----------|-----|------|-----|------|
| SUPPLY VOLTAGE FOR LOGIC | VDD-VSS | Ta = 2 5 | - | 5.0 | 5.5 | V |
| SUPPLY VOLTAGE FOR LCD DRIVER | VDD-VSS | Ta = 2 5 | - | - | - | V |
| OPERATING VOL. FOR LCD MODULE | VDD-Vo | Ta = 2 5 | - | 5.8 | - | V |
| INPUT HIGH VOL. | VIH | - | 2.2 | - | VDD | V |
| INPUT LOW VOL. | VIL | - | 0 | - | 0.6 | V |
| SUPPLY CURRENT FOR LOGIC | Idd | VDD=5.0V | - | 3.0 | 4.5 | mA |
| SUPPLY CURRENT FOR LCD | ILCD | - | - | - | 6.0 | mA |
| LED CURRENT | If | Ta = 2 5 | - | 200 | - | mA |
| LED CURRENT | If | Ta = 2 5 | - | 200 | - | mA |
| LED DISSIPATION | Pd | Ta = 2 5 | - | 1000 | - | mW |

4. BLOCK DIAGRAM:



6.DIMENSIONAL DRAWING :

