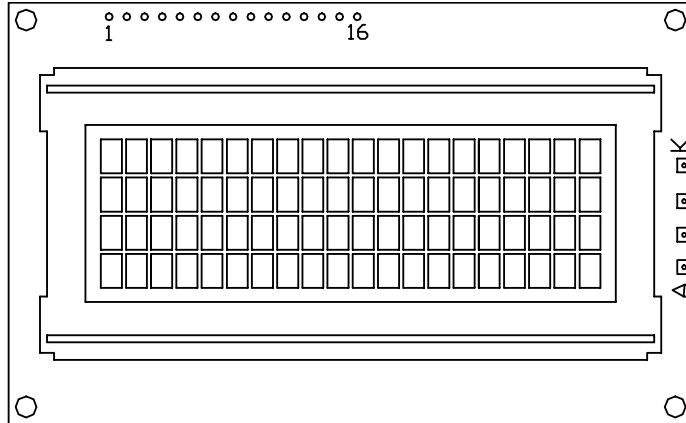


### JM 204 C

### LCD- Standard Charaktermodul



#### Hauptmerkmale

- 20 Charakter / 4 Zeilen
- Ziffernhöhe 4.83 mm
- Single Supply +5 Volt
- STN-Technologie
- Einstellbarer Kontrast
- Option LED / EL-Beleuchtung

Kontroller: KS0066U

#### PIN Belegung

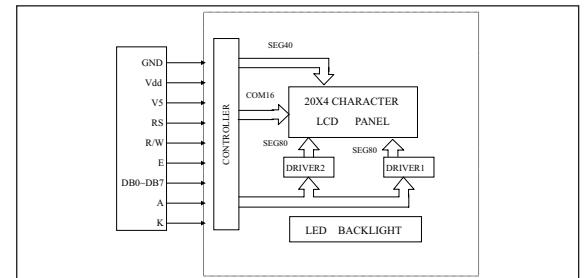
| PIN | SYMBOL | SIGNAL DESCRIPTION                       |
|-----|--------|--|
| 1   | Vss    | Power Supply (GND)                       |
| 2   | Vdd    | Power Supply (+5V)                       |
| 3   | V5     | Contrast Adjust                          |
| 4   | RS     | Register Select (H=Data, L=Instruction)  |
| 5   | R/W    | Read/Write (H: Read mode, L: Write mode) |

| PIN  | SYMBOL  | SIGNAL DESCRIPTION  |
|------|---------|---------------------|
| 6    | E       | Enable              |
| 7-14 | DB0-DB7 | Data Bus Line       |
| 15   | A       | Anode of LED unit   |
| 16   | K       | Cathode of LED unit |

#### Spezifikationen (TA=25 °C)

| ITEM                   | SYMBOL          | CONDITION                 | MIN. | TYP. | MAX. | UNIT |
|------------------------|-----------------|---------------------------|------|------|------|------|
| Supply Voltage (Logic) | Vdd-Vss         | -                         | 4.5  | 5.0  | 5.5  | V    |
| Supply Current (Logic) | Idd             | Vdd=V5                    | -    | 3.0  | -    | mA   |
| Driving Current (LCD)  | Iee             |                           | -    | 0.8  | -    | mA   |
| Driving Voltage (LCD)  | Vdd-V5          |                           | 3.8  | 4.5  | 4.9  | V    |
| Input Voltage "H"      | V <sub>IH</sub> |                           | 2.2  | -    | Vdd  | V    |
| Input Voltage "L"      | V <sub>IL</sub> |                           | -0.3 | -    | 0.6  | V    |
| Output Voltage "H"     | V <sub>OH</sub> | I <sub>OH</sub> =-0.205mA | 2.4  | -    | -    | V    |
| Output Voltage "L"     | V <sub>OL</sub> | I <sub>OL</sub> =-1.2mA   | -    | -    | 0.4  | V    |

#### Block Diagramm



#### Mechanische Abmessung

