

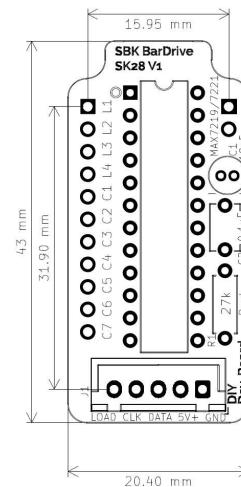
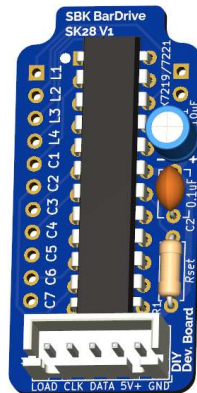
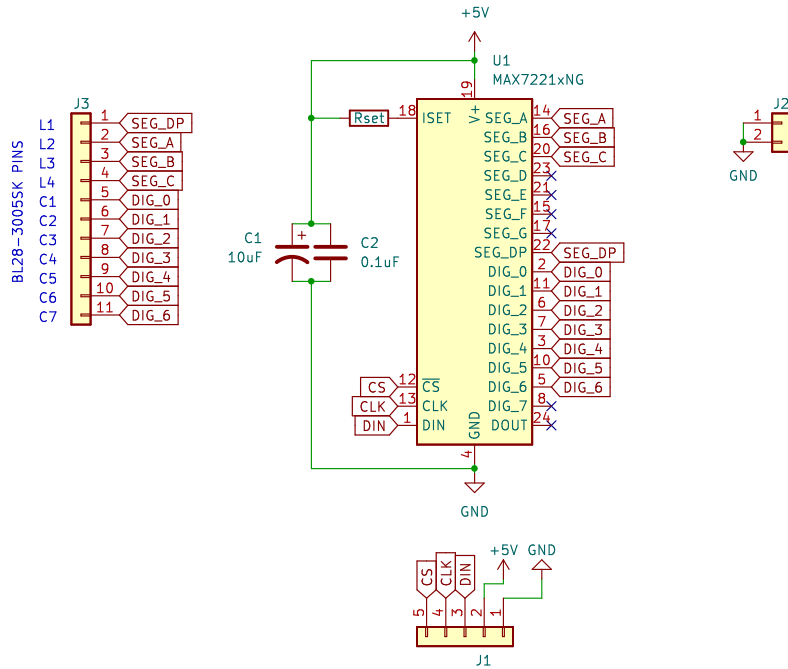


Table 11. R_{SET} vs. Segment Current and LED Forward Voltage

| I_{SEG} (mA) | V_{LED} (V) | | | | |
|----------------|---------------|------|------|------|------|
| | 1.5 | 2.0 | 2.5 | 3.0 | 3.5 |
| 40 | 12.2 | 11.8 | 11.0 | 10.6 | 9.69 |
| 30 | 17.8 | 17.1 | 15.8 | 15.0 | 14.0 |
| 20 | 29.8 | 28.0 | 25.9 | 24.5 | 22.6 |
| 10 | 66.7 | 63.7 | 59.3 | 55.4 | 51.2 |

Note: R_{SET} values are in Kilo Ohms (k Ω)

Reference : 19-4452; Rev 6; 8/21



| PCB: | | SBK BarDrive 64 V1 | | |
|----------------------|-----|--------------------|--------------------------|---|
| Date: | | 2025-06-15 8:45 | | |
| Component Count: | | 7 | | |
| Collated Components: | | | | |
| Item | Qty | Ref. | Value | Part |
| 1 | 1 | C1 | 10uF | Electrolytic capacitor : THT Radial D4.0mm H7.0mm P1.50mm |
| 2 | 1 | C2 | 0.1uF | Ceramic capacitor : THT D5.1mm W8.2mm P5.00mm |
| 3 | 1 | J1 | JSF-XH 1x05 | JSF-XH PCB terminal male plug : THT 1x05 P2.50mm Vertical |
| 4 | 1 | J2 | Conn 01x02 | optional 2.54mm header |
| 5 | 1 | J3 | Conn 01x11 | optional 2.54mm header |
| 6 | 1 | R1 | Rset | 1/4W resistor : THT L6.3mm D2.5mm P7.62mm Horizontal |
| 7 | 1 | U1 | MAX7219xNG MAX7221xNG | MAX72xxIC leds driver : DIP-24_W7.62mm |

SBK BarDrive SK28 V1 PCB
with MAX7219/MAX7221 IC leds driver
to use as a backpack for compatible SBK BarMeter 28 PCBs
or with any other compatible leds displays

Smart Builds & Kits

Sheet: /
File: SBK_BarDrive SK28 V1.kicad_sch

Title: SBK BarDrive SK28 V1

Size: USLetter Date: 2025-06-14
KiCad E.D.A. kicad 7.0.9

Rev: 0
Id: 1/1