# Bill of Materials for the NCP51705SMDGEVB Evaluation Board

| Designator | Quantity | Description | Value | Tolerance | Footprint | Manufacturer | Manufacturer Part Number | Substitution Allowed | Lead Free |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| C1, C10 | 2 | CAP, SMD, CERAMIC, 50V, X7R | 2.2µF | | 0805 | TDK | | YES | YES |
| C2 | 1 | CAP, SMD, CERAMIC, 50V, X7R | 100nF | | 0402 | TDK | | YES | YES |
| C3 | 1 | CAP, SMD, CERAMIC,25V, X7R | 47nF | | 0402 | STD | | YES | YES |
| C4-6 | 3 | CAP, SMD, CERAMIC, 25V, X5R | 470nF | | 0402 | STD | | YES | YES |
| C7, C9, C12 | 3 | CAP, SMD, CERAMIC, 10V, X7R | 100nF | | 0603 | STD | | YES | YES |
| C8 | 1 | CAP, SMD, CERAMIC, 10V, X7R | 2.2µF | | 0603 | STD | | YES | YES |
| C11 | 1 | CAP, SMD, CERAMIC, 50V, NPO | 10pF | | 0402 | STD | | YES | YES |
| C13 | 1 | CAP, SMD, CERAMIC, 25V, X7R | 100nF | | 0603 | TDK | | YES | YES |
| D1 | 1 | Diode, Fast, 1A, 1000V, Std. Rec. | | | SOD123F | Vishay | RS1MWF | NO | YES |
| D2 | 1 | Diode, Shottky, 40V, 500mA, 510mV | | | SOD-123 | ON Semiconductor | MBR0540 | NO | YES |
| J1 | 1 | DNI | | | Thru-Hole | Molex | 90122-0762 | NO | YES |
| J2 | 1 | DNI | | | Thru-Hole | Molex | 10081031 | NO | YES |
| J3 | 1 | DNI | | | Thru-Hole | Wurth | 61300311121 | NO | YES |
| Q1 | 1 | MOSFET, N-CH, 600V, 20A, 190mOhm | DNI | | TO-247 | ON Semiconductor | | YES | YES |
| R1, R5, R9-10 | 4 | RES, SMD, 1/10W | 0 | | 0603 | STD | | YES | YES |
| R2 | 1 | RES, SMD, 1/16W | 91k | | 0402 | STD | | YES | YES |
| R3 | 1 | RES, SMD, 1/8W | 3.01 | | 0805 | STD | | YES | YES |
| R4 | 1 | RES, SMD, 1/8W | 1 | | 0805 | STD | | YES | YES |
| R6-8 | 3 | RES, SMD, 1/10W | DNI | | 0603 | STD | | YES | YES |
| R11 | 1 | RES, SMD, 1/8W | 5.1k | | 0805 | STD | | YES | YES |
| R12 | 1 | RES, SMD, 1/8W | 10k | | 0805 | STD | | YES | YES |
| U1 | 1 | SiC Driver, Single, 6A, Single, MLP4x4-24 | | | MLP | On Semiconductor | NCP51705 | NO | YES |
| U2 | 1 | Digital Isolator, RF, 4-Channel | | | QSOP-16 | Analog Devices | ADuM142E1WBRQZ | NO | YES |