

## Bill of Materials for NCP1030 Demonstration Board

ON Semiconductor



8/3/2004

| Designator | Quantity | Description               | Value                    | Tolerance | Footprint   | Manufacturer     | Manufacturer Part Number | Substitution Allowed | Lead Free | Comments |
|------------|----------|---------------------------|--------------------------|-----------|-------------|------------------|--------------------------|----------------------|-----------|----------|
| C1, C6     | 2        | Ceramic Chip Capacitor    | 680 pF, 25 V             | 5%        | 0805        | Vishay, Vitramon | VJ0805A681JXA            | Yes                  | No        |          |
| C2         | 1        | Ceramic Chip Capacitor    | 0.033 uF, 25 V           | 10%       | 0805        | Vishay, Vitramon | VJ0805Y333KXXA           | Yes                  | No        |          |
| C3         | 1        | Ceramic Chip Capacitor    | 22 uF, 25 V              | 20%       | 4532        | TDK              | C4532X5R1E226M           | Yes                  | No        |          |
| C4         | 1        | Ceramic Chip Capacitor    | 2.2 uF, 25 V             | 20%       | 4532        | TDK              | C4532X7R1H225M           | Yes                  | No        |          |
| C5         | 1        | Ceramic Chip Capacitor    | 2.2 uF, 100 V            | 20%       | 4532        | TDK              | C4532X7R2A225M           | Yes                  | No        |          |
| C7, C8     | 2        | Ceramic Chip Capacitor    | 0.01 uF, 25 V            | 10%       | 0805        | Vishay           | VJ0805Y103KXXAT          | Yes                  | No        |          |
| C9         | 1        | Ceramic Chip Capacitor    | 100 pF, 250 V            | 5%        | 1608        | TDK              | C1608COG2E101J           | Yes                  | No        | Optional |
| C10        | 1        | Ceramic Chip Capacitor    | 0.022u, 250 V            | 10%       | 2012        | TDK              | C2012X7R2E223K           | Yes                  | No        |          |
| D1,D2      | 2        | Shottky Power Rectifier   | 1 A, 60 V                | NA        | SMA         | On Semiconductor | MBRA160T3                | No                   | No        |          |
| D3         | 1        | Ultrafast Power Rectifier | 1A, 100 V                | NA        | SMA         | On Semiconductor | MURA110T3                | No                   | No        | Optional |
| J1-J4      | 4        | Printed Circuit Pin       | NA                       | NA        | NA          | Mill-Max         | 0912-0-00-01-00-00-03-0  | Yes                  | No        |          |
| L1         | 1        | Surface Mount Inductor    | 2.2 uH, 0.32 A           | 10%       | 1210        | Vishay           | IMC1210SY2R2K            | Yes                  | No        |          |
| R1         | 1        | Thick Film Chip Resistor  | 1.0 M $\Omega$ , 1/10 W  | 1%        | 0805        | Vishay           | CRCW08051004F            | Yes                  | No        |          |
| R2         | 1        | Thick Film Chip Resistor  | 45.3 k $\Omega$ , 1/10 W | 1%        | 0805        | Vishay           | CRCW08054532F            | Yes                  | No        |          |
| R3         | 1        | Thick Film Chip Resistor  | 34 k $\Omega$ , 1/10 W   | 1%        | 0805        | Vishay           | CRCW08053402F            | Yes                  | No        |          |
| R4         | 1        | Thick Film Chip Resistor  | 4.99 k $\Omega$ , 1/10 W | 1%        | 0805        | Vishay           | CRCW08054991F            | Yes                  | No        |          |
| R5         | 1        | Thick Film Chip Resistor  | 1.3 k $\Omega$ , 1/10 W  | 1%        | 0805        | Vishay           | CRCW08051301F            | Yes                  | No        |          |
| R6         | 1        | Thick Film Chip Resistor  | 10 $\Omega$ , 1/10 W     | 1%        | 0805        | Vishay           | CRCW080510R0F            | Yes                  | No        |          |
| R7         | 1        | Thick Film Chip Resistor  | 10 k $\Omega$ , 1/10 W   | 1%        | 0805        | Vishay           | CRCW08051002F            | Yes                  | No        |          |
| R8         | 1        | Thick Film Chip Resistor  | 0 $\Omega$ , 1/10 W      | 5%        | 0805        | Vishay           | CRCW0805000Z             | Yes                  | No        |          |
| R9         | 1        | Thick Film Chip Resistor  | 499 $\Omega$ , 1/3 W     | 1%        | 1210        | Vishay           | CRCW12104990F            | Yes                  | No        | Optional |
| TX1        | 1        | Flyback Transformer       | 120 uH                   | 10%       | 0.475"x0.4" | Coilcraft        | B0226-E                  | Yes                  | No        |          |
| U1         | 1        | PWM Controller            | NA                       | NA        | Micro8      | On Semiconductor | NCP1030DMR2              | No                   | No        |          |