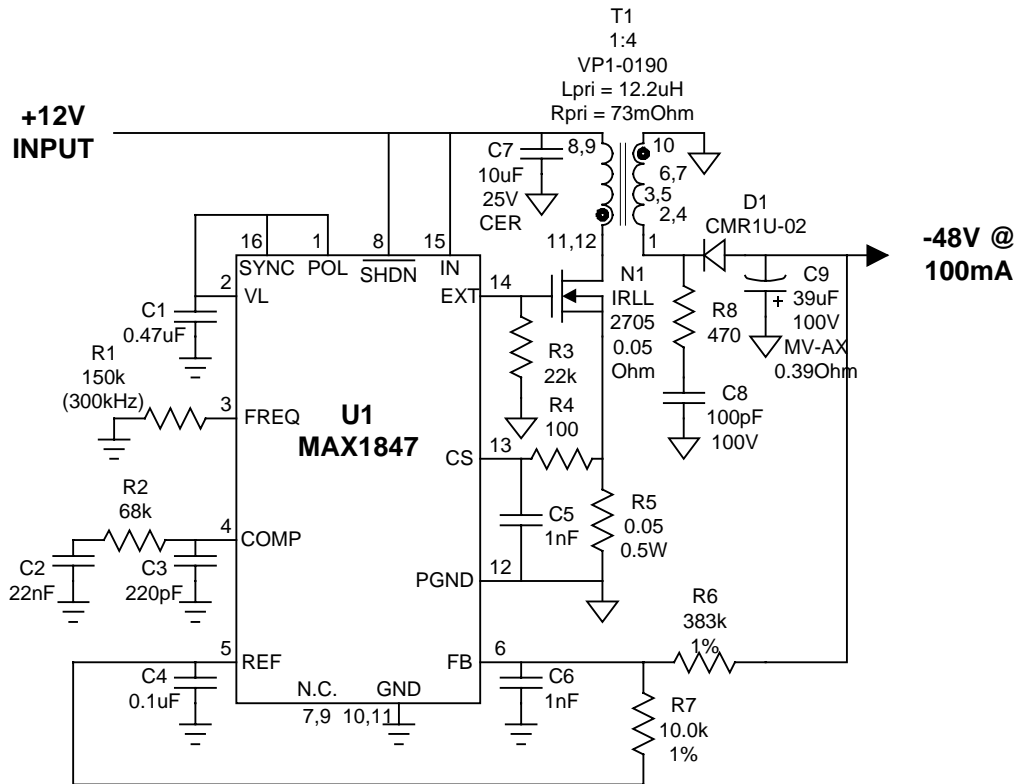


# MAX1847 transformer application



1847-48t  
 RWY  
 09/17/01

## +12V to -48V @ 100mA

| V <sub>in</sub> | I <sub>in</sub> | V <sub>out</sub> | I <sub>out</sub> | Efficiency |                      |
|-----------------|-----------------|------------------|------------------|------------|----------------------|
| 10.795          | 0.499           | -47.673          | -0.100           | 0.885      |                      |
| 11.999          | 0.450           | -47.672          | -0.100           | 0.883      | <200mV <sub>pp</sub> |
| 13.202          | 0.409           | -47.671          | -0.100           | 0.883      |                      |

**BILL OF MATERIALS**  
**10.8V to 13.2V Input**  
**-48V @ 100mA Output**  
**09/18/01**

1847-48t

| <b>DESIGNATION</b> | <b>QTY</b> | <b>DESCRIPTION</b>   |
|--------------------|------------|--|
| C1                 | 1          | 0.47uF ceramic capacitor (0805)                                |
| C2                 | 1          | 22nF ceramic capacitor (0805)                                  |
| C3                 | 1          | 220pF ceramic capacitor (0805)                                 |
| C4                 | 1          | 0.1uF ceramic capacitor (0805)                                 |
| C5,C6              | 2          | 1nF 6V ceramic capacitor (0805)                                |
| C7                 | 1          | 10uF 25V ceramic capacitor (1812)<br>Taiyo Yuden TMK432BJ106MM |
| C8                 | 1          | 100pF 100V ceramic capacitor (0805)                            |
| C9                 | 1          | 39uF 100V aluminum electrolytic capacitor<br>Sanyo 100MV39AX   |
| D1                 | 1          | 1A 200V Ultra-fast recovery diode<br>Central Semi CMR1U-02     |
| N1                 | 1          | 50m Ohm 55V N-FET (SOT-223)<br>IRLL2705                        |
| R1                 | 1          | 150k Ohm 5% resistor (0805)                                    |
| R2                 | 1          | 68k Ohm 5% resistor (0805)                                     |
| R3                 | 1          | 22k Ohm 5% resistor (0805)                                     |
| R4                 | 1          | 100 Ohm 5% resistor (0805)                                     |
| R5                 | 1          | 50m Ohm 1% 0.5W resistor (2010)<br>Dale WSL-2010-R050F         |
| R6                 | 1          | 383k Ohm 1% resistor (0805)                                    |
| R7                 | 1          | 10.0k Ohm 1% resistor (0805)                                   |
| R8                 | 1          | 470 Ohm 0.25W resistor (1210)                                  |
| T1                 | 1          | 1:4 Transformer<br>Coiltronics VP1-0190                        |
| <b>U1</b>          | <b>1</b>   | <b>MAX1847EEE (16-QSOP)</b>                                    |