

NOTES:
RESET delay = 5us

LAYOUT CONSIDERATIONS:

1. Keep noisy and high current traces away from sensitive lines or separate them by using additional ground traces in between, otherwise instability or oscillation can occur.
2. The resistive divider for fixing the output voltage should be placed as close as possible to the COMP pin.
3. All power components like the input and output capacitors, the inductor, the diode, and the device should be kept as close together as possible. The traces should be kept short, wide, and direct.

| | | |
|--------------------------------|--------------------|--------------|
| TEXAS INSTRUMENTS | | |
| Title MC33063 Power Supply | | |
| Size B | Number PMP2954-1.2 | Rev A |
| Date 10/1/2007 | Drawn by S Zargar | |
| Filename PMP2954-1.2_REV_A.sch | | Sheet 1 of 1 |

Filename: PMP2954-1_bom.xls

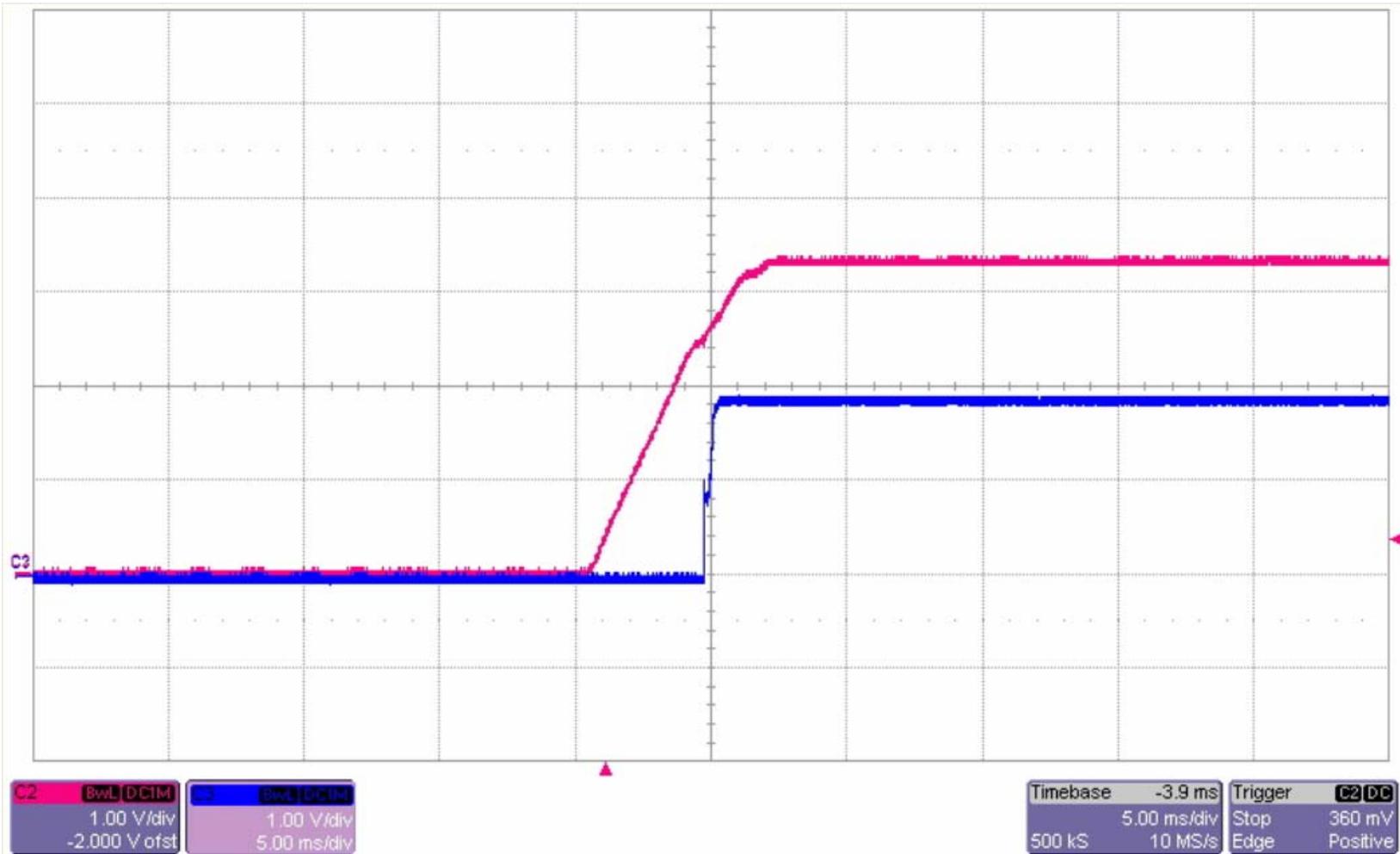
Date: 10/05/2007

PMP2954-1.2 BOM

| COUNT | RefDes | Value | Description | Size | Part Number | MFR |
|-------|------------|-------------|---|--------------------|---------------|-------------------|
| 1 | C1 | 220pF | Capacitor, Ceramic, 220-pF, 50-V, X7R, 15% | 0603 | Std | Std |
| 1 | C2 | 470uF | Capacitor, Aluminum, 6.3V, ±20% | 0.328 x 0.390 inch | EEVFK0J471F | Panasonic |
| 2 | C3, C4 | open | Capacitor, Ceramic, open | 1206 | Std | Std |
| 1 | C5 | 10uF | Capacitor, Aluminum, 25V, ±20% | 0.200 x 0.210 inch | EEVFK1E100B | Panasonic |
| 1 | C6 | 0.1uF | Capacitor, Ceramic, 0.1uF, 50V, X7R, 10% | 0603 | Std | Std |
| 1 | C7 | 10uF | Capacitor, Tantalum, 10V, 4milliohm, 20% | 0.110 x 0.215 inch | TAJT106006 | AVX |
| 3 | J1, J3, J2 | ED1514 | Terminal Block, 2-pin, 6-A, 3.5mm | 0.27 x 0.25 | ED1514 | OST |
| 1 | Q1 | 2N7002DICT | MOSFET, N-ch, 60-V, 115-mA, 1.2-Ohms | SOT23 | 2N7002DICT | Vishay-Liteon |
| 1 | R1 | 0.3 | Resistor, Chip, 0.3 Ohms, 0.125W, 10% | 805 | Std | Std |
| 1 | R2 | 165K | Resistor, Chip, 165k, 1/16W, 1% | 603 | Std | Std |
| 3 | R3, R6, R8 | 20K | Resistor, Chip, 20K-Ohms, 1/16-W, 1% | 603 | Std | Std |
| 1 | R4 | 100K | Resistor, Chip, 100k, 1/16W, 1% | 603 | Std | Std |
| 1 | R5 | 12.1K | Resistor, Chip, 12.1K-Ohms, 1/16-W, 1% | 603 | Std | Std |
| 2 | R7, R9 | 1K | Resistor, Chip, 1K-Ohms, 1/16-W, 1% | 603 | Std | Std |
| 2 | TP1, TP2 | | Test Point, Black, 1mm | 0.038 | 240-333 | Farnell |
| 1 | U1 | MC33063A-Q1 | IC, 1.5 A Boost/Buck/Inverting SW Reg. | SO8 | MC33063AQDRJR | Texas Instruments |
| 1 | U2 | TPS77601D | IC, LDO Regulator With PG Output Fast-Transient-Response, | SO8 | TPS77601D | Texas Instruments |
| 1 | U3 | TPS3803-01 | IC, Voltage Supervisor, xxVolts, | SOP-5 (DCK) | TPS3803-01 | Texas Instruments |

- Notes:
1. These assemblies are ESD sensitive, ESD precautions shall be observed.
Part Number TAJT106006
 2. These assemblies must be clean and
Use of no clean flux is not acceptable.
 3. These assemblies must comply with workmanship standards IPC-A-610 Class 2.
 4. Ref designators marked with an asterisk (***) cannot be substituted.
All other components can be substituted with equivalent MFG's components.

PMP2954-1.2_Rev_A Start-up Waveform



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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
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