



$$\text{por_delay} = C6 \text{ (nF)} / 175 \text{ (nF/ms)} + 0.5 \text{ ms} = 10.8 \text{ ms}$$

- 1 R2 and R3 provide the 5 mA minimum load current that the TLV1117 requires in order to maintain regulation. They may or may not be required depending on the application's minimum load current specification.
- 2 Additional input may be required depending on the regulator's proximity to the system power supply. Additional output capacitance will be required to meet load transient requirements.
- 3 U4 has an open collector output and so will need a pull up resistor (R8 in this design) if not connected to a pin that is internally pulled up.

TEXAS INSTRUMENTS

Title TLV1117 based with sequence F28xxx DSP Power		
Size B	Number PR673	Rev E-1
Date 10/8/07	Drawn by	
Filename pr673e-1.sch	Sheet of	

Filename: PR673E-1_bom.xls						
Date: 10/15/2007						
PR673E-1 BOM						
COUNT	RefDes	Value	Description	Size	Part Number	MFR
2	C1, C3	10uF	Capacitor, Ceramic, 6.3V, X5R, 20%	603	STD	STD
2	C2, C4	0.1uF	Capacitor, Ceramic, 6.3V, X5R, 20%	603	STD	STD
2	C5, C8	100uF	Capacitor, Aluminum, 6.3V, ±20%	0.201 x 0.262 in	EEVFK0J101P	Panasonic
1	C6	1800pF	Capacitor, Ceramic, 6.3V, X5R, 20%	603	STD	STD
2	C7, C9	1.0uF	Capacitor, Ceramic, 6.3V, X5R, 20%	603	STD	STD
2	D1, D2	1N4002	Diode, Signal, 100V, 1A	DO-41	1N4002	Diodes
1	Q1	MMBT3904	Bipolar, NPN, 40V, 200mA, 200mW	SC-75	MMBT3904TT1	On Semi
1	Q2	Si2301DS	MOSFET, P-ch, -20V, -2.3A, 130 milliohms	SOT23	Si2301DS	Vishay
3	R1, R6, R9	56.2k	Resistor, Chip, 1/16W, 1%	603	STD	STD
1	R2	357	Resistor, Chip, 1/16W, 1%	603	STD	STD
1	R3	660	Resistor, Chip, 1/16W, 1%	603	STD	STD
1	R4	374k	Resistor, Chip, 1/16W, 1%	603	STD	STD
1	R5	23.7k	Resistor, Chip, 1/16W, 1%	603	STD	STD
1	R7	249k	Resistor, Chip, 1/16W, 1%	603	STD	STD
1	R8	49.9k	Resistor, Chip, 1/16W, 1%	603	STD	STD
1	U1	TLV1117-18IKVU	IC, 1.8V, 800mA LDO Voltage Regulators	Power-Flex	TLV1117-18IKVU	TI
1	U2	TLV1117-33IKVU	IC, 3.3V, 800mA LDO Voltage Regulators	Power-Flex	TLV1117-33IKVU	TI
1	U3	TPS3803-01DCK	IC, Voltage Detector,	SOP-5 (DCK)	TPS3803-01DCK	TI
1	U4	TPS3808G01DBVRF	IC, Low Quiescent Current, Programmable Adj, Delay Time: 1.2	SOT23-6	TPS3808G01DBVRF	TI
Notes:						
1. These assemblies are ESD sensitive, ESD precautions shall be observed.						
2. These assemblies must be clean and free from flux and all contaminants.						
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.						

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