



$$\text{por_delay} = -R12 \cdot C9 \cdot \ln\left(1 - \frac{5 \cdot 10}{17.5} / 3.3\right) = 10\text{ms}$$

⚠️ 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.

⚠️ U4 has an open collector output and so will need a pull up resistor (R4 in this design) if not connected to a pin that is internally pulled up.

TEXAS INSTRUMENTS

Title			TPS736xx based F28xxx DSP Power		
Size	Number			Rev	
B	PR674			E-1	
Date	10/15/07	Drawn by			
Filename	pr674e-1.sch	Sheet		of	

Filename: PR674E-1_bom.xls						
Date: 10/15/2007						
PR674E-1 BOM						
COUNT	RefDes	Value	Description	Size	Part Number	MFR
3	C1, C3, C5	10uF	Capacitor, Ceramic, 6.3V, X5R, 20%	0603	STD	STD
2	C2, C4	1uF	Capacitor, Ceramic, 6.3V, X5R, 20%	0603	STD	STD
2	C6, C8	0.1uF	Capacitor, Ceramic, 6.3V, X5R, 20%	0603	STD	STD
1	C7	1.0uF	Capacitor, Ceramic, 6.3V, X5R, 20%	0603	STD	STD
1	R1	28k	Resistor, Chip, 1/16W, 1%	0603	STD	STD
2	R2, R3	56.2k	Resistor, Chip, 1/16W, 1%	0603	STD	STD
2	R4, R6	10k	Resistor, Chip, 1/16W, 1%	0603	STD	STD
1	R5	7.5k	Resistor, Chip, 1/16W, 1%	0603	STD	STD
1	R7	23.7k	Resistor, Chip, 1/16W, 1%	0603	STD	STD
1	R8	49.9k	Resistor, Chip, 1/16W, 1%	0603	STD	STD
1	U1	TPS73601DRB	Adj. Output IC, Cap-Free, NMOS, 400mA LDO Regulator	QFN (DRB)	TPS73601DRB	TI
1	U2	TPS73633DRB	3.3-V output IC, Cap-Free, NMOS, 400mA LDO Regulator	QFN (DRB)	TPS73601DRB	TI
1	U3	TPS3805H33DCK	IC, Dual Voltage Detector,	SOP-5 (DCK)	TPS3805H33DCK	TI
1	U4	TL331DBV	IC, COMPARATOR, DIFFERENTIAL, SINGLE	SOT_23_5 (DB)	TL331DBV	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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Mailing Address: Texas Instruments, Post Office Box 655303, Dallas, Texas 75265
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