Quasi-Resonant Switching Power Supply using FA5541

Table of component models use in the DesignKit

Code	Classification	Part No.	Manufacturer	SPEC
IC1	Switching power supply control IC	FA5541/42	Fuji Electric	
PC1	Photocoupler	TLP281	TOSHIBA	
SR1	Shunt regulator	TA76432F	TOSHIBA	VREF = 1.26 V
M1	Power MOSFET	2SK3681-01	Fuji Electric	V_{DSS}=600V ,I_D=43A
DBR1	Bridge Diode	D3SB80	SHINDENGEN	800V, 4A, I_{FSM}=120A
D1	Diode	ERA38-06	Fuji Electric	600V, 0.5A
D2		ERA22-02	Fuji Electric	200V, 0.5A
D3,D4		D1NL20U	SHINDENGEN	200V, 1A
D21,D22	Schottky barrier diode	YG865C15R	Fuji Electric	150V, 20A
C7	Aluminum Electrolytic Capacitor	PEG124HG410AQ	ELFA	1000uF ,25V
C4, C5, C6		PEG124HJ433BQ	ELFA	3300uF ,25V

Simulation files are stored in folders, as shown in list below.

Simulations   **Folder name**

1. Start-up sequence simulation... Startup
2. Quasi-Resonant Switching Power Supply Waveforms................... Waveforms
3. Step-load response... Stepload
4. Power switch devices (M1 and SBD losses)................................ Losses
5. Variable design parameters (Ll$_{eak}$ and C2).................................... Params

※ Please copy the folder named "Simulations" to your PC. Library files (.lib) are added already.

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