

LTspice Model

Intelligent Power Module (IPM)

MITSUBISHI ELECTRIC CORPORATION.

PSS15S93F6-S

Model Information

Model A macro model
Call Name PSS15S93F6-S
Pin Assign 1:NC 2:VUFB 3:VVFB 4:VWFB 5:UP 6:VP 7:WP 8:VP1 9:VNC 10:UN 11:VN 12:WN
 13:VN1 14:FO 15:CIN 16:VNC 17:NC 18:NW 19:NV 20:NU 21:W 22:V 23:U 24:P 25:NC
File List Model Library MDC_PSS15S93F6-S_LT.lib
 Model Report MDC_PSS15S93F6-S_LT.pdf(this file)
Verified Simulator Version LTspice XVII
Note

References

The information which was used for modeling is as follow:

[Data Sheet]
 ●Date/Version 2021.1
 ●Product name PSS15S93F6-S
 ●Company name MITSUBISHI ELECTRIC CORPORATION.

[Characteristics listed]
 ●Characteristics
 ton/toff
 UVLO
 3phase drive

Simulation Condition

This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Condition	Unit
Temperature	25	deg C

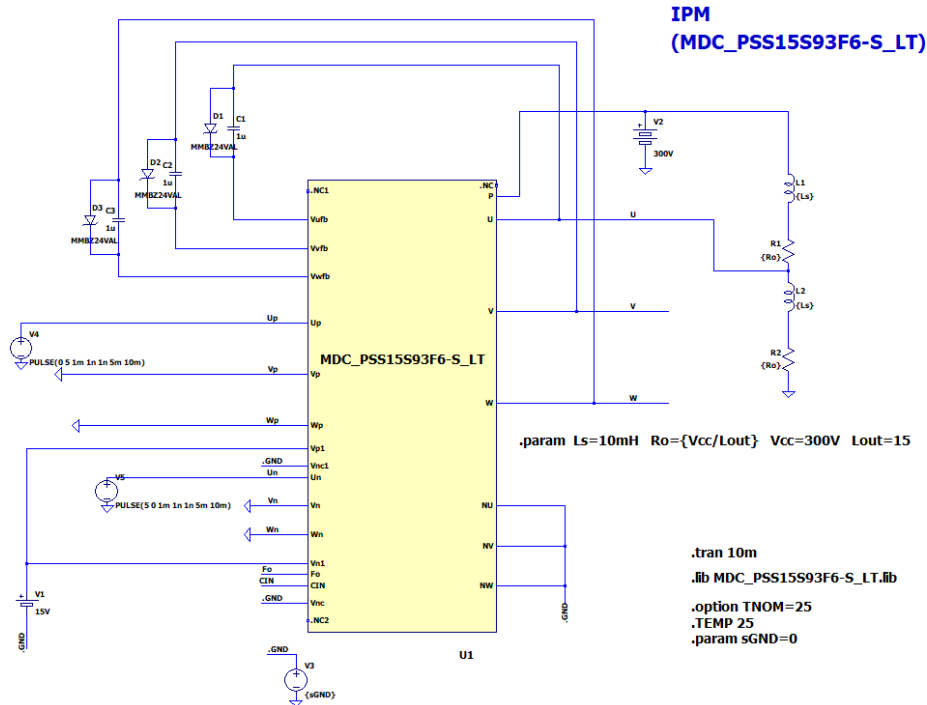
○ : Implemented
× : Not Implemented
— : Not applicable

Model Functions Table
RANK=1

Functions	RANK	Implemented
Truth Table	1	○
On Resistance	1	○
Switching(Typ.)	1	○
UVLO	1	○
VIH/VIL-VDD	1	—
Clamp Voltage	1	—
Propagation delay	1	○
Over Current Protection	2	—
Over Voltage Protection	2	—

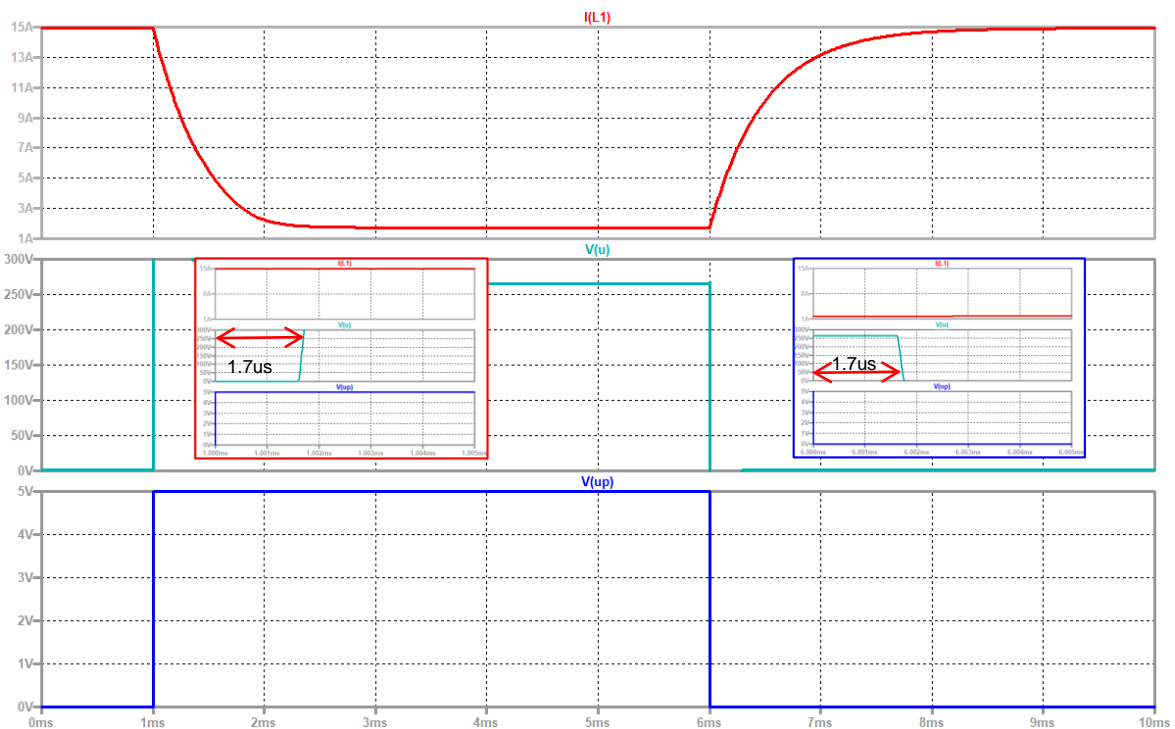
ton/toff Testbench

Referred to Data Sheet



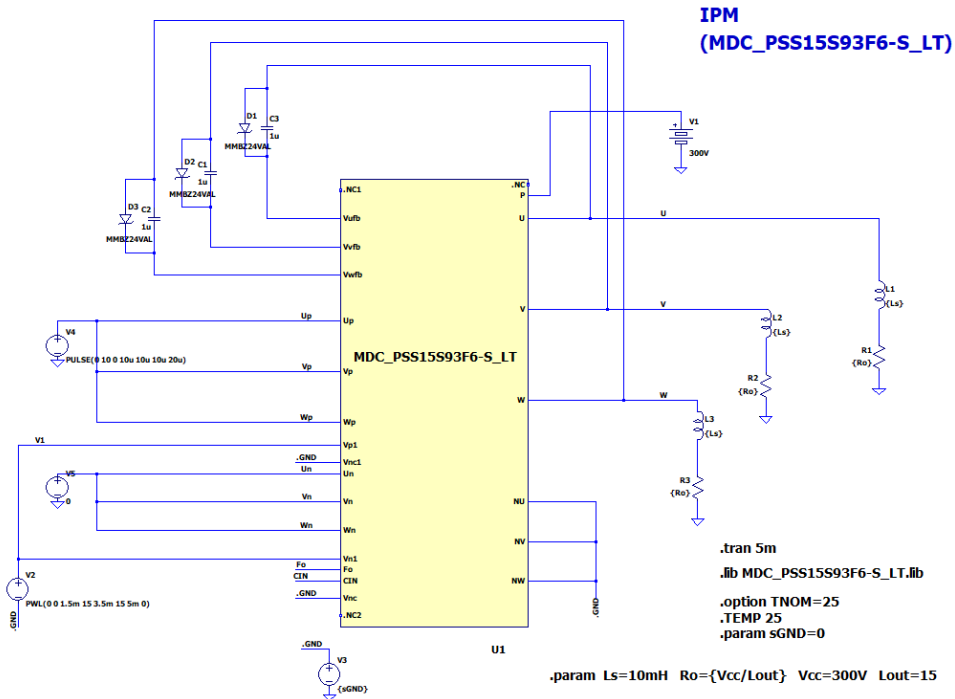
Simulation results are following.
Explanatory notes — : simulated

ton/toff



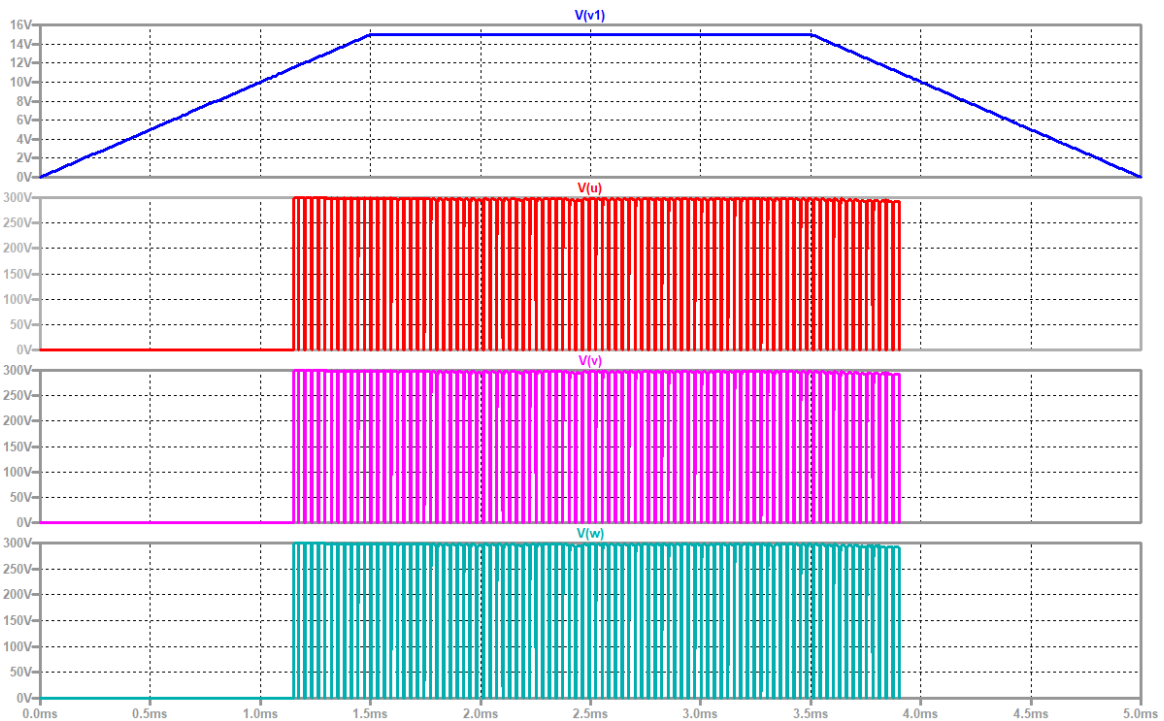
UVLO Testbench

Referred to Data Sheet



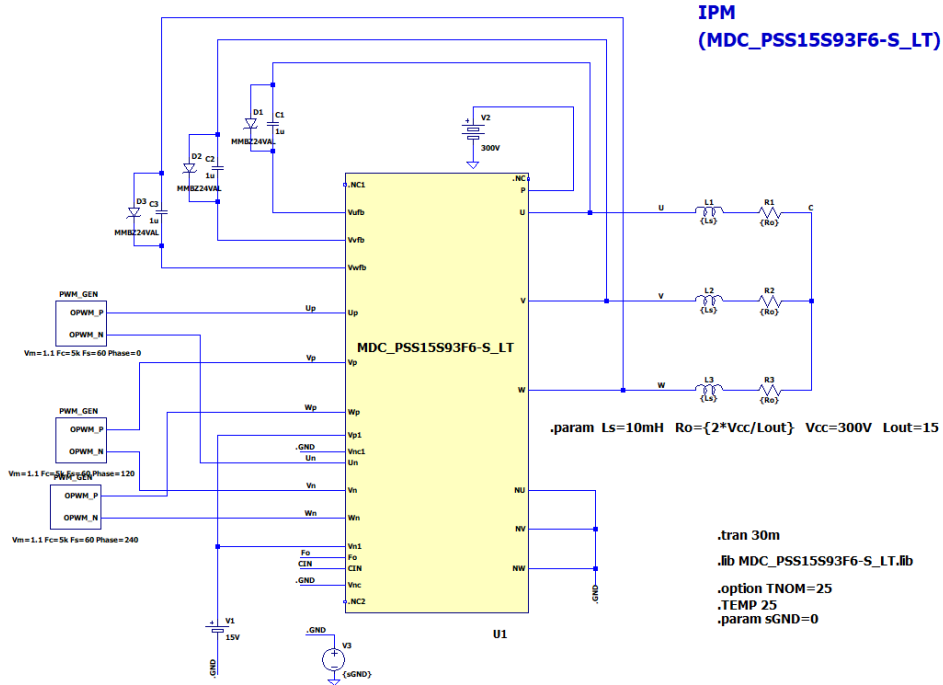
Simulation results are following.
 Explanatory notes — : simulated

UVLO



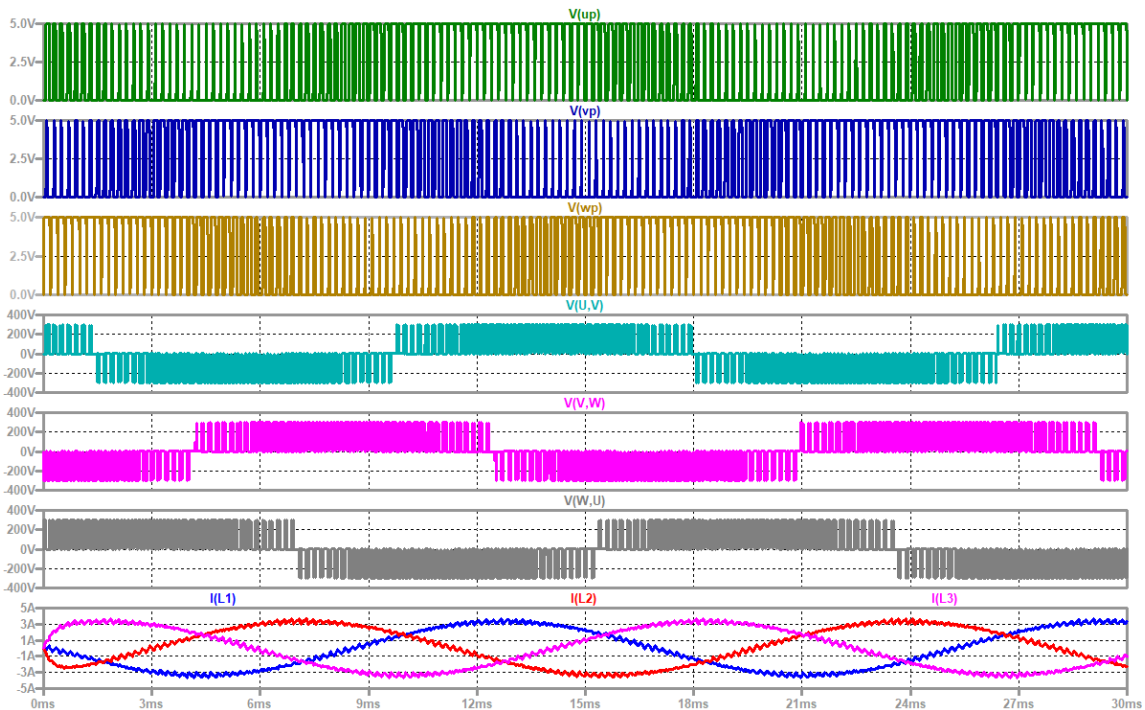
3phase drive Testbench

Referred to Data Sheet



Simulation results are following.
 Explanatory notes — : simulated

3phase drive



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