

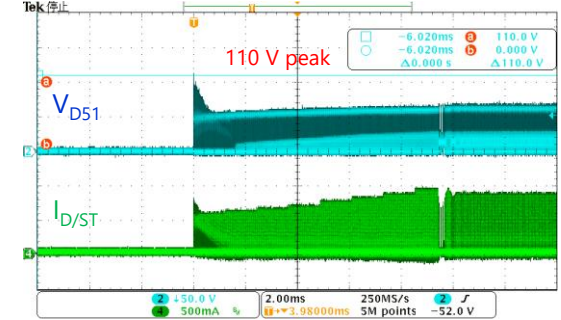
STR6A100xV/xVD Series

◆ Step Drive Control

The STR6A100xV/xVD series employ step drive control that optimally controls the gate drive of the internal power MOSFET according to the load. This reduces the surge voltage of the secondary rectifier diode, D51, at turn-on, resulting in setting the breakdown voltage of D51 lower than before. By this means, the improvement of circuit efficiency is achieved by lowering the cost and V_F of D51. A 150 V Schottky diode is used for the evaluation board.

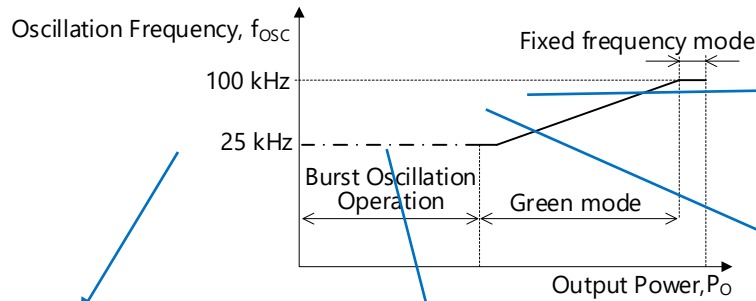
Evaluation Board Operational Waveform at Startup

($V_{IN}=265\text{ VAC}$, $V_{OUT}=15\text{ V}$, $I_O=1\text{ A}$)

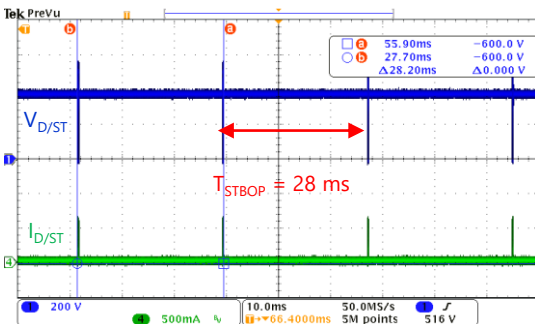


◆ Automatic Switching of Operation Mode according to the Load

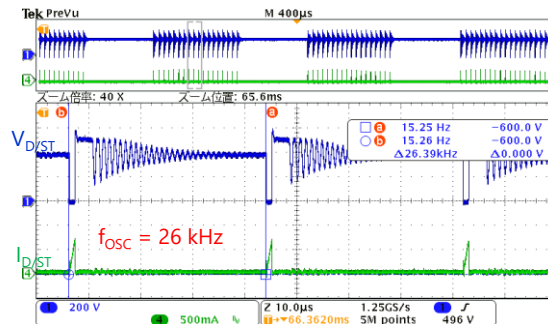
Evaluation Board Operational Waveform ($V_{IN}=265\text{ VAC}$, $R7=330\text{ k}\Omega$, $V_{OUT}=15\text{ V}$)



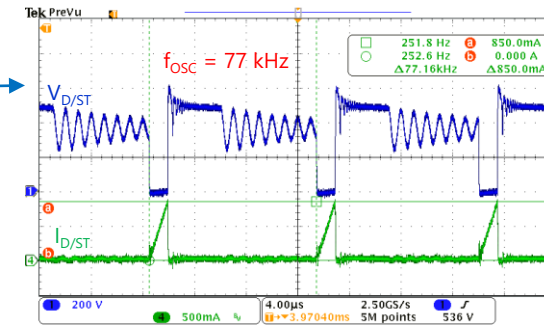
No load ($I_O=0\text{ A}$)



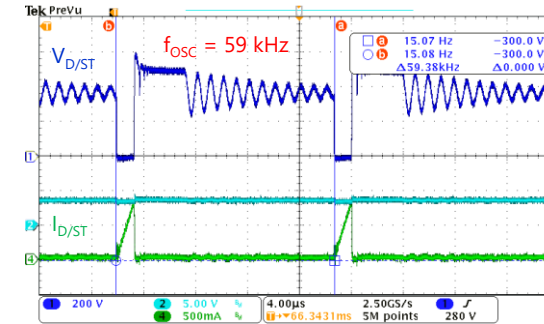
Standby operating point ($I_O=0.1\text{ A}$)



Heavy load ($I_O=1\text{ A}$)



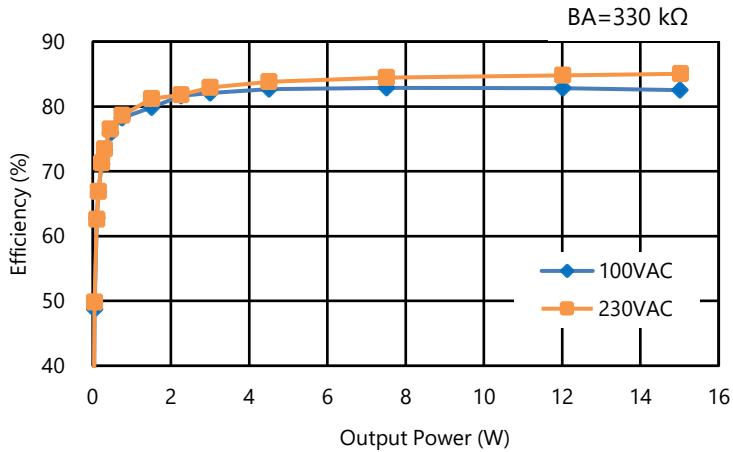
Medium load ($I_O=0.7\text{ A}$)



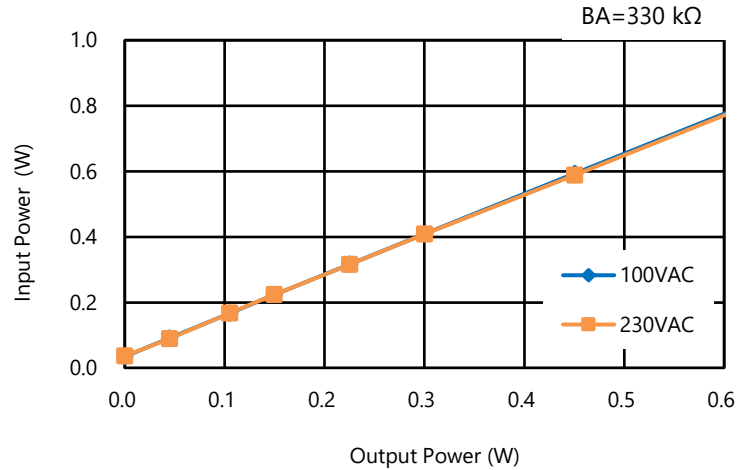
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Evaluation Board Characteristics: 15 W (15 V / 1.0 A)

◆ Efficiency (In All Load Ranges)



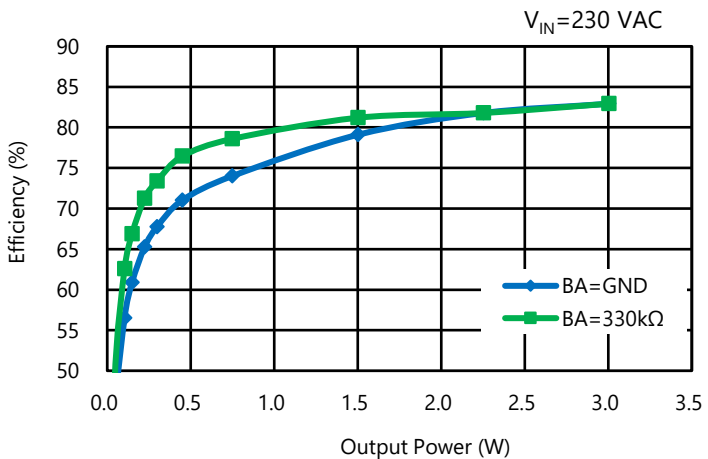
◆ Standby Power



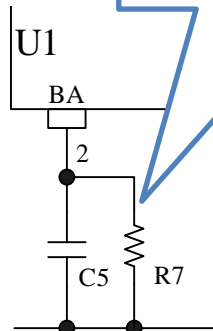
◆ Input Power at No Load

Input Voltage	Input Power
100 VAC	35.5 mW
230 VAC	37.1 mW

◆ Efficiency when the Standby Operating Point is Changed



Standby operating point can be changed by the resistance connected to BA pin.



BA Pin Resistance	Load Factor at Standby Operating Point
Shorted	About 3 to 6 %
Open	About 4 to 8 %
330 kΩ	About 6 to 11 %
68 kΩ	About 8 to 13 %

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