

STR-A6000xZ Series

■ Features

Downsized, Low Power Consumption

- Built-in startup circuit
(automatically turn off after startup, zero power consumption)
- Built in power MOSFET of 700 V

High Efficiency

- Automatically switch the operation mode according to the load
Normal operation: frequency fixed, 67 kHz/100 kHz
Light load: burst oscillation operation

Highly Stable Control

- Current mode PWM control
- Leading edge blanking function

Low Noise

- Soft start function (reduces stresses on parts)
- Random switching function

Providing Highly Reliable Circuits by Various Protections

- Overload protection (OLP): auto-restart
- Overvoltage protection (OVP): auto-restart
- Thermal shutdown (TSD) with hysteresis: auto-restart

■ Selection Guide

Bare lead frame: Pb-free (RoHS compliant)



Part Number	V_{DSS} (min.)	$f_{OSC(AVG)}$	$R_{DS(ON)}$ (max.)	P_{OUT}^*
STR-A6069MZ	700 V	67 kHz	6.0 Ω	17 W
STR-A6061MZ			3.95 Ω	21 W
STR-A6063MZ			2.3 Ω	26 W
STR-A6069HZ	700 V	100 kHz	6.0 Ω	19.5 W
STR-A6061HZ			3.95 Ω	23.5 W
STR-A6063HZ			2.3 Ω	28 W

*Universal, open frame

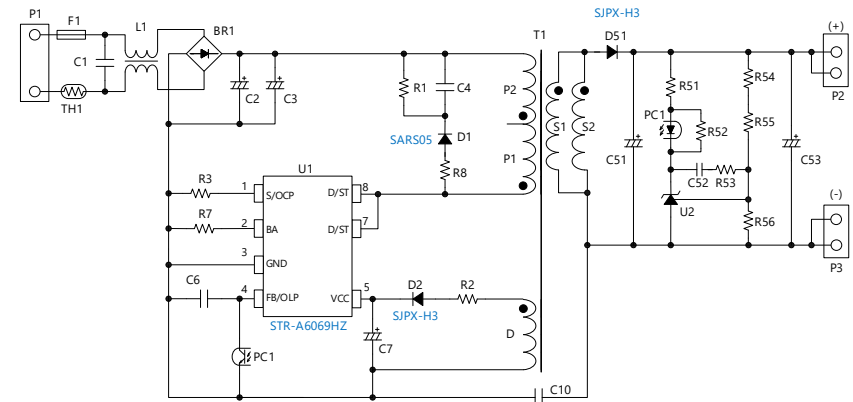
■ Evaluation Board

We also provide an evaluation board for an isolated flyback converter of 10.5 W (15 V/0.7 A) using STR-A6069HZ.



48.5 mm×120.5 mm

Evaluation Board Circuit

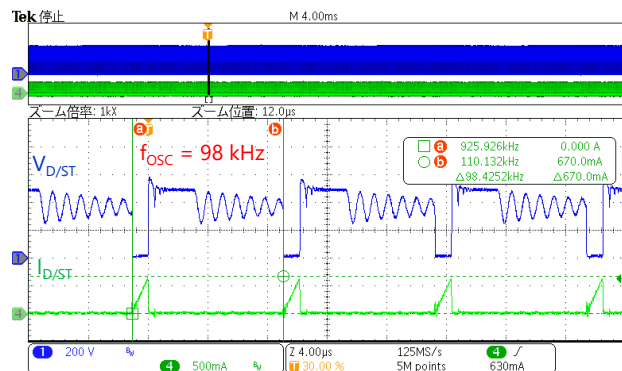


◆ Automatic Switching of Operation Mode according to the Load

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

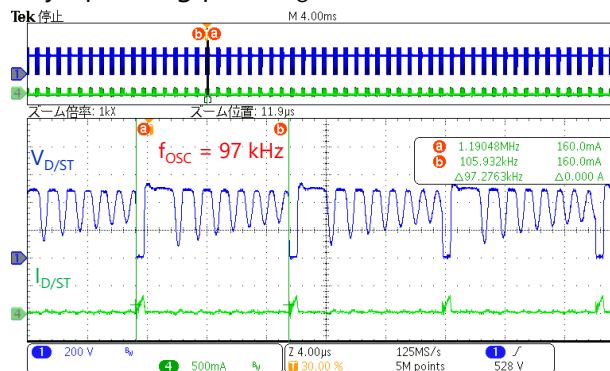
Normal Operation

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

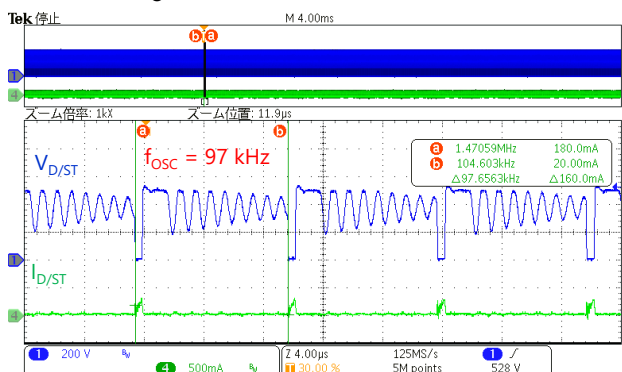


Burst Oscillation Operation

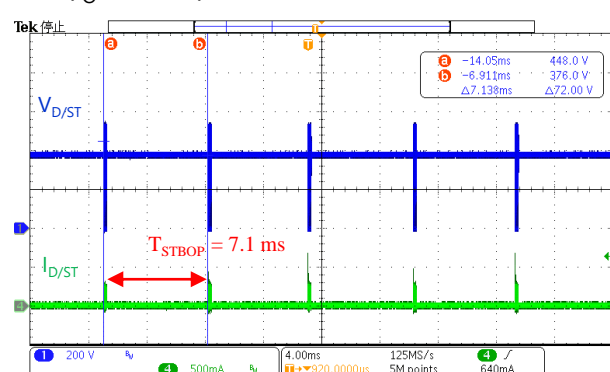
Standby operating point ($I_O = 0.05 \text{ A}$)



Medium load ($I_O = 0.15 \text{ A}$)



No load ($I_O = 3 \text{ mA}$)



The burst oscillation period becomes long according to the power reduction.

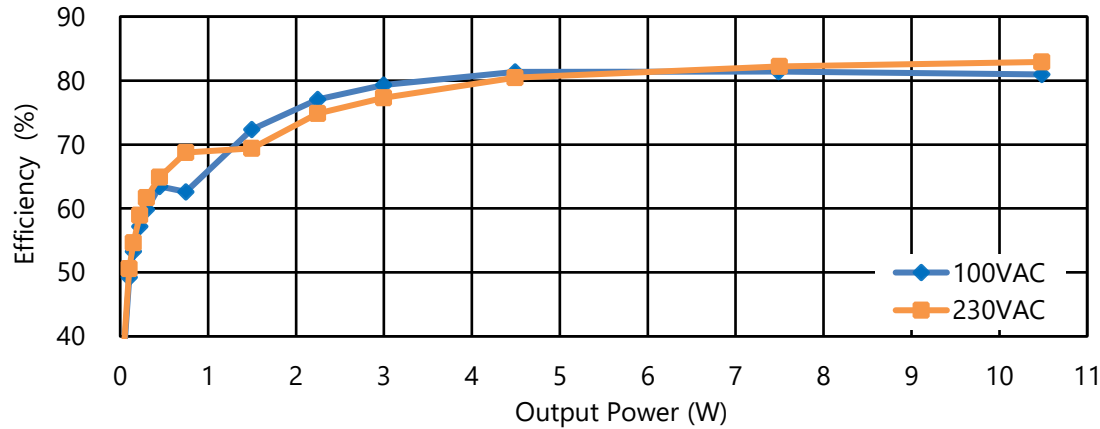


Low Switching Losses!

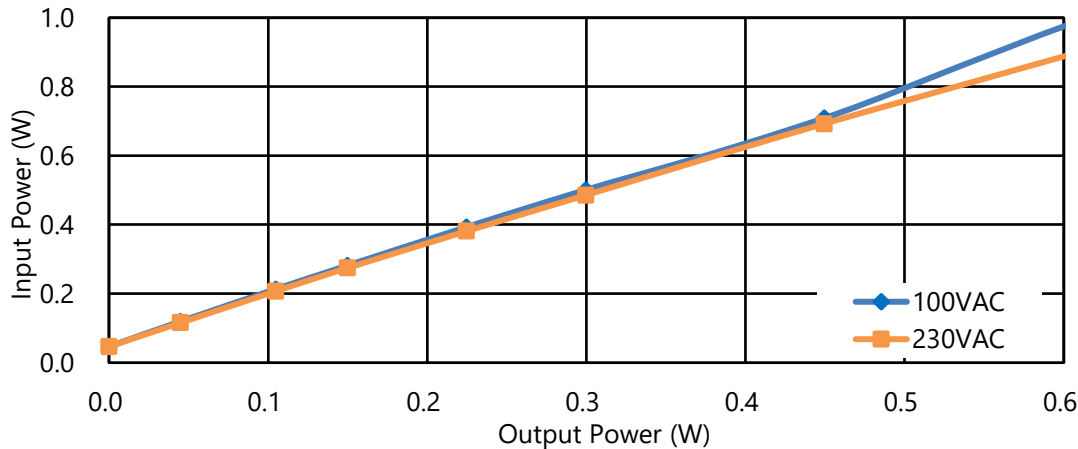
STR-A6000xZ Series

Evaluation Board Characteristics: 10.5 W (15 V / 0.7 A)

◆ Efficiency (In All Load Ranges)



◆ Standby Power



◆ Input Power at No Load

Input Voltage	Input Power
100 VAC	46 mW
230 VAC	47 mW

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