

Description

Au9681H-X series is designed for high efficient and Low powerconsumption rectifier in switching power second side. It is capable to work not only in CCM, DCM, CRM, used in common and QR isolated flyback power with no added adjustments,but also can work in single-stage PFC flyback power too.

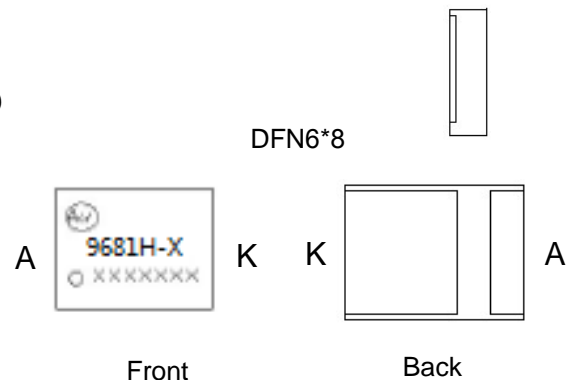
Especially it could be used in Non-isolated power to replace fly-wheel diode to improve efficiency. And Especially, it can replace Schottky Diodes and SR IC together with mosfets directly in power's second side

Features

- *Operating frequency up to 200KHz.
- *Low Standby power to meet DOE Lot6 requirement
- *Low power loss,high efficiency,offers efficiency improvement over Schottky Diode
- *simplifying the external circuit design
- *No change on transformer , no Vcc auxiliary winding needed
- *Work well both in high-side and low-side in isolated flyback power.
- *Support working in some non-isolated DC-DC power.

APPLICATIONS

- Switching Mode Power Supply (CCM&DCM&QR)
- Storage area network power supplies
- Telecommunication converters
- Embedded systems
- Industrial & commercial systems using high current processors
- Power converters to meet Lot 6 requirement



PIN DESCRIPTION

Pin	Symbol	Description
1	A	current Input.
2	K	Current output

Maximum Ratings and Electrical Characteristics

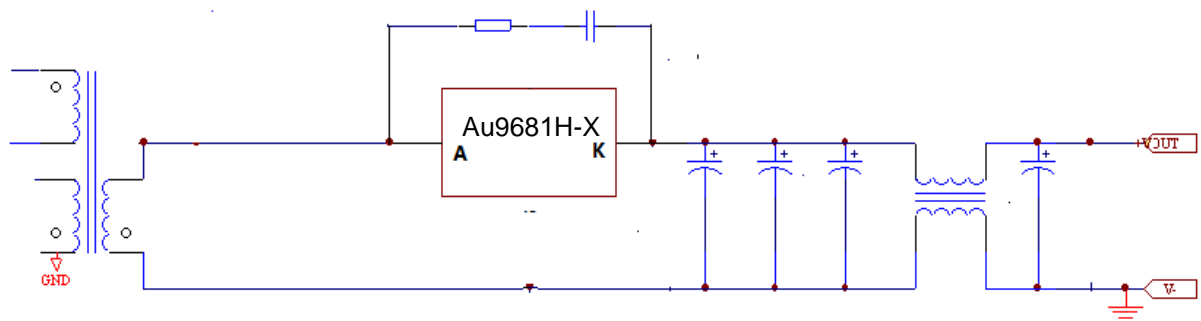
Rating at 25 °C ambient temperature unless otherwise specified.Single phase, half wave, 60 Hz, resistive or inductive load.For capacitive load, derate current by 20%

P/N	V _F (mV)	V _F (mV)	V _{dc} (V)	I _F (av.) (A)	I _{FRM} (A)	I _{out} (A)	P _d (W)	T _{stg} (°C)
	Typical forward voltage IF=5A Ta=25°C Vout=12V	Typical forward voltage IF=5A	Maximum DC blocking voltage	Maximum average forward rectifier current Tc=100°C	Peak repetitive forward current	Suggested Load current	Max power dissipation	Storage temperature range
AU9681H-L	40	55	40	60	240	4	45	-40 to +150
AU9681H-O	24	48	40	80	320	5	45	-40 to +150
AU9681H-W	18	20	40	120	480	8	45	-40 to +150
AU9681H-S	55	68	60	60	240	4	45	-40 to +150
AU9681H-H	80	50	60	80	320	5	45	-40 to +150
AU9681H-Y	12	16	60	150	600	10	45	-40 to +150
AU9681H-ML	45		80	20	80	3	45	-40 to +150
AU9681H-D	10		85	130	390	10	45	-40 to +150

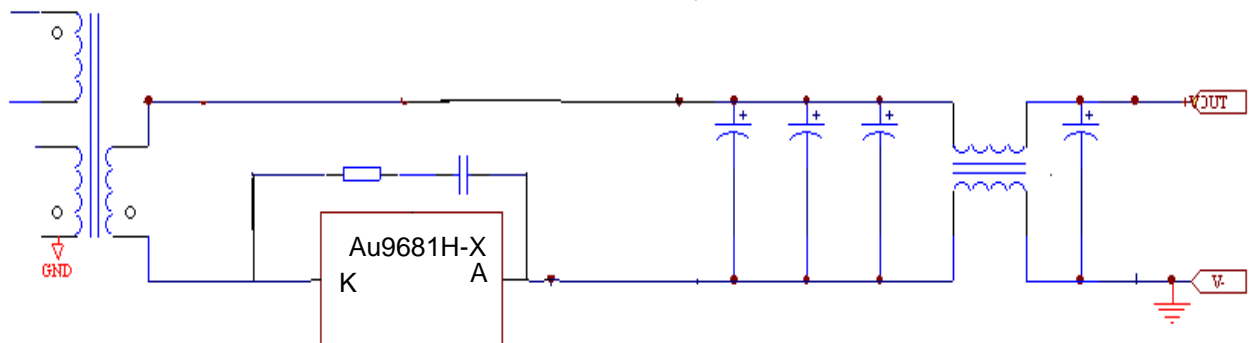
AU9681H-M*	70		100	35	140	3	45	-40 to +150
AU9681H-N	40		100	60	240	4	45	-40 to +150
AU9681H-A	30		100	80	320	5	45	-40 to +150
AU9681H-E	25		100	100	380	7	45	-40 to +150
AU9681H-T	10		100	140	420	10	45	-25 to +150
AU9681H-F	30		120	100	360	6	45	-25 to +150
AU9681H-B	110		150	60	200	4	45	-25 to +150
AU9681H-G	35		150	80	300	8	45	-25 to +150

* Tested under the condition $I_F=3A$

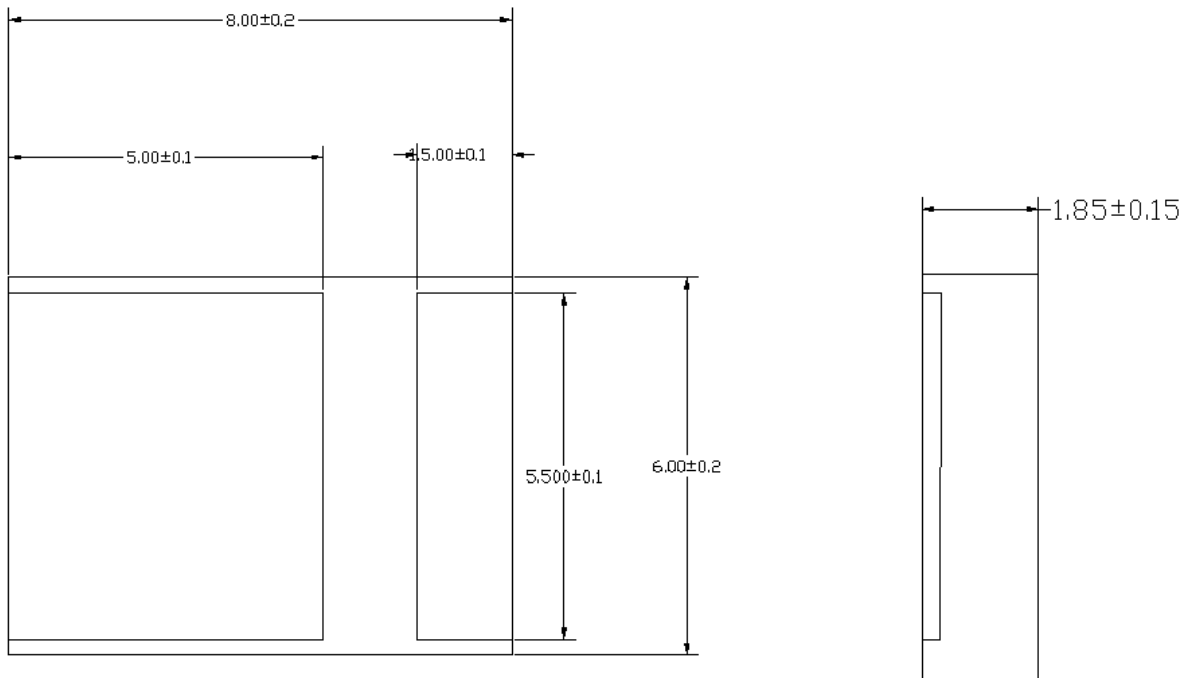
1.Application in flyback



Work in high side



Work in low side

DIMENSION INFORMATION (mm)**Package DFN6*8**

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