

Description

Au9674L-XX series is designed for high efficient and Low power consumption rectifier in power second side. switching it is capable to work in not only CCM, DCM, CRM, used in common and QR isolated flyback power with no added adjustments.

Especially it could be used in Non-isolated power to replace fly-wheel diode to improve efficiency.

Features

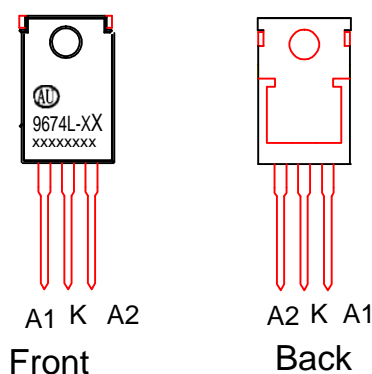
- *Operating frequency up to 100KHz.
- *Low Standby power to meet DOE Lot6 requirement
- *Low power loss,high efficiency,offers efficiency improvement over Schottky Diode
- *simplifying the external circuit design
- *No change on transformer , no Vcc auxiliary winding needed
- *Work well both in high-side 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 processor
- Power converters to meet Lot 6 requirement

PIN DESCRIPTION

TO-220BF



Pin	Symbol	Description
1	A1	assistant current input.
2	A2	main current input.
3	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.

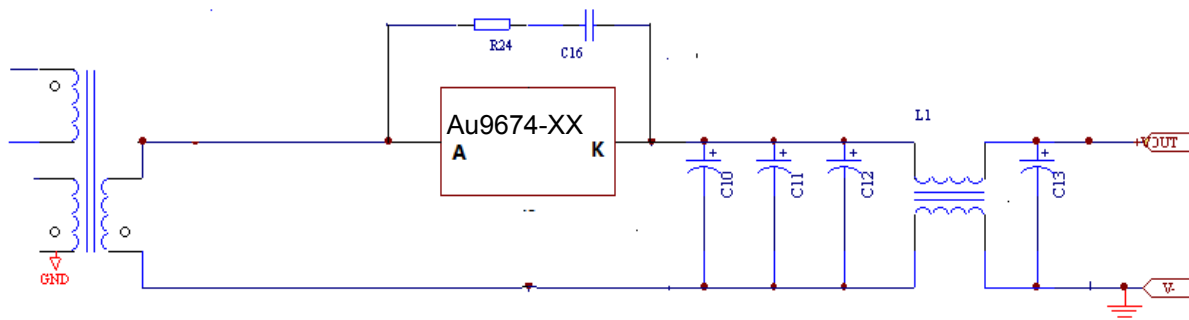
For capacitive load, derate current by 20%

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
AU9674L-J	60		100	30	90	3.5	40	-40 to +150
AU9674L-JL	50		100	40	120	4	40	-40 to +150
AU9674L-NL	45		100	50	150	5	40	-40 to +150
AU9674L-A	35		100	60	180	8	40	-40 to +150
AU9674L-T	25		100	100	300	10	40	-40 to +150
Au9674L-B	60		150	40	160	4	40	-40 to +150
AU9674L-K	35		150	60	180	6	40	-40 to +150
AU9674L-G	25		150	80	240	10	40	-40 to +150
AU9674L-P	60*		200	60	180	4	40	-40 to +150

* Tested under the condition IF=3A

* Not suggested used in big dynamic load change power

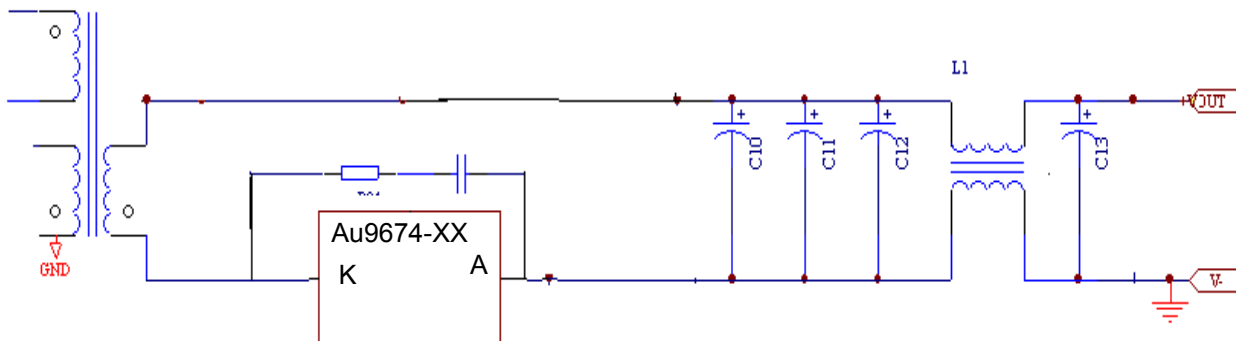
1.Application in flyback



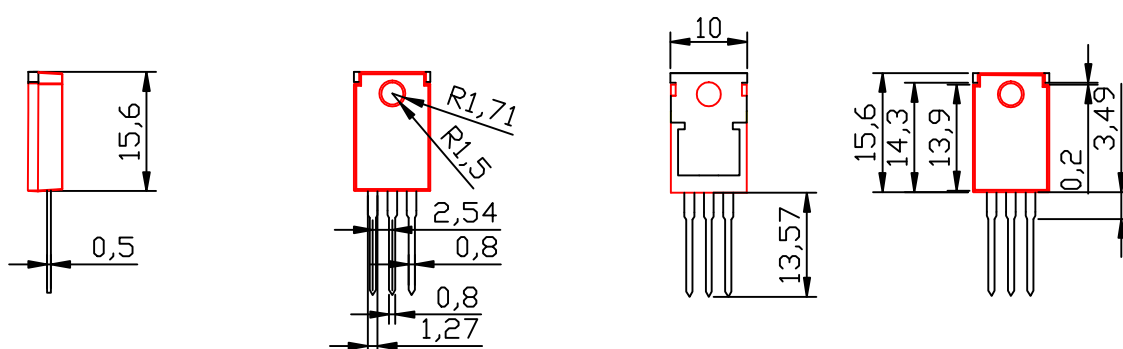
Work in high side

Application Note under working in high side:

If possible, it is a good way connecting heat sink to output capacitor anode directly without insulating collidal particle and heat conductive gasket between the smart rectifier and the heat sink, that could save the cost and improve EMI performance , and decrease the leakage current between the smart rectifier and heat sink to get higher efficiency and lower Vakpeak voltage too.



Work in low side

DIMENSION INFORMATION (mm)**Package TO-220BF**

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