Au9672H-XH

Imitating Diode-Forward and Half bridge Smart Rectifier

Description

Au9672H-XH series is designed for high efficient and Low power consumption rectifier in switching power second side. it is capable to work in CCM, DCM, CRM, used in Forward or Half-bridge topology power in--cluding LLC or hard-switching mode with no added adjustments,and it can support burst mode under no load or light load.

Especially, it can replace TO220/F Schotty Diodes and SR mosfets directly in second side. And based on our patented " quasi-GaN " technology with approaching-zero reverse-recovery time , it supports high-frquence operation or large dynamic- load change in switching power or others, reducing turn-off peak voltage very well

Features

*Operating frequence up to 300KHz.

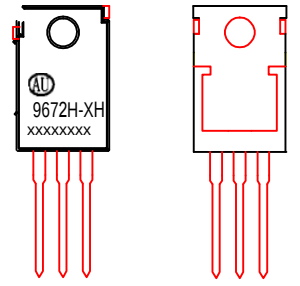
*Low power loss,high efficience,offers efficiency improvement over Schottky Diode

*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.

TO-220BF



APPLICATIONS

- Switching Mode Power Supply
- Storage area network power supplies
- Telecommunication converters
- Embedded systems
- Industrial & commercial systems using high current processors

PIN DESCRIPTION

Pin	Symbol	Description
1	A1	assistant current input,must connected with Pin A2.
2	A2	main current input,must connected
3	K	Current output

Maximum Ratings and Electrical Characteristics

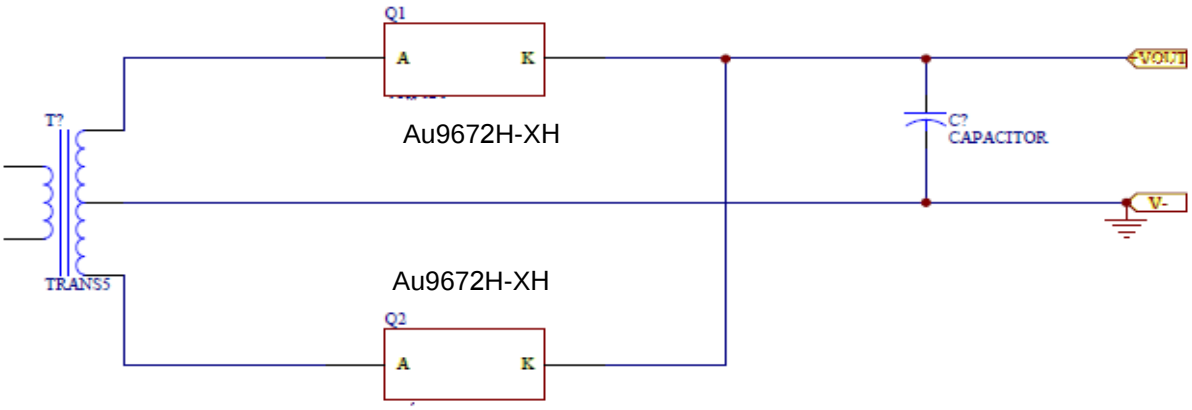
Rating at 25 ℃ ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

P/N	VF (mV)	Vdc (V)	IF(av.) (A)	IFRM(A)	Iout(A)	Pd (W)	Tstg (℃)
	Typical forward vlotage IF=5A Ta=25℃ Vout=12V	Maximum DC blocking voltage	Maximum average forward rectifier current Tc=100℃	Peak repetitive forward current	Suggested Load current	Max power dissipation	Storage temperature range
AU9672H-JH	6	30	120	480	30	40	-40 to +125
AU9672H-LH	40	40	60	240	8	40	-40 to +125
AU9672H-FH	24	40	80	320	10	40	-40 to +125
AU9672H-AH	18	40	150	480	18	40	-40 to +125
Au9672H-GH	10	40	200	600	30	40	-40 to +125
AU9672H-HH	80	60	80	320	12	40	-40 to +125
AU9672H-KH	12	60	120	600	20	40	-40 to +125
AU9672H-BH	45	100	40	160	8	40	-40 to +125
AU9672H-CH	30	100	80	320	20	40	-40 to +125
AU9672H-DH	25	100	100	380	25	40	-40 to +125
AU9672H-SH	10	100	140	420	33	40	-40 to +125
AU9672H-MH	30	120	100	360	20	40	-25 to +150
Au9672H-NH	50	150	50	130	8	40	-40 to +125
Au9672H-EH	40	150	70	210	16	40	-25 to +151
AU9672H-VH	30	150	80	300	20	40	-40 to +125

Application

Application note: 1) Pin A2 and Pin A1 must be connected with each other ;
2) Better please insert the pin deeply into the PCB for decreasing the power loss of pin's impedance if possible.

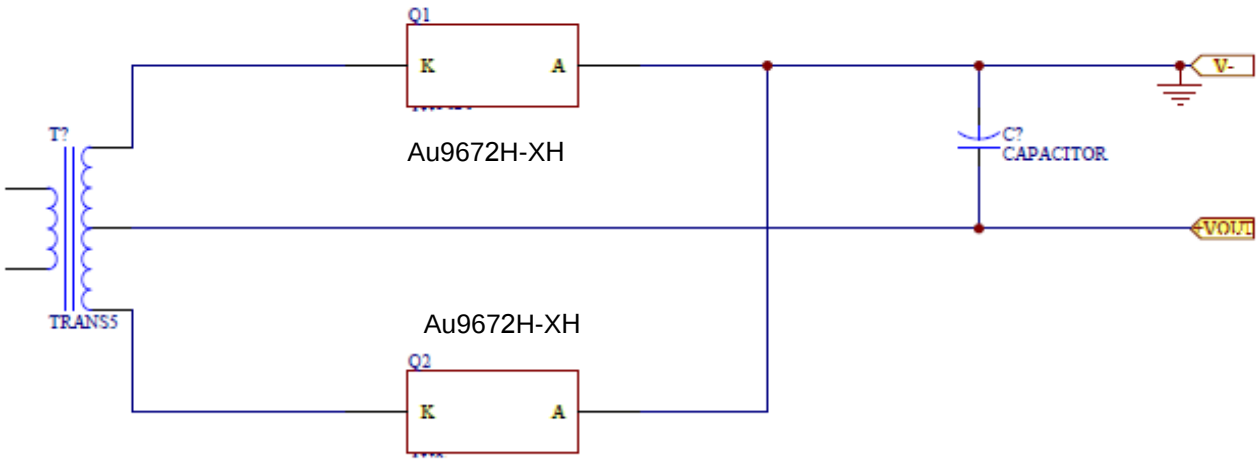
a.



Application Note :

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.

b.



DIMENSION INFORMATION (mm)

Package TO-220BF