Description

Au9676-X 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.

Features

*Operating frequence up to 300KHz.

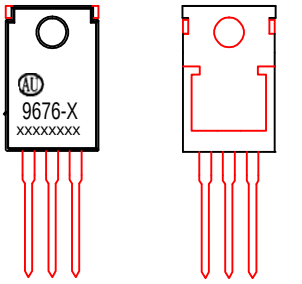
*Low power loss,high efficience,offers efficiency improvement over Schottky Diode

*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.
2	A2	main current input.
3	K	Current output

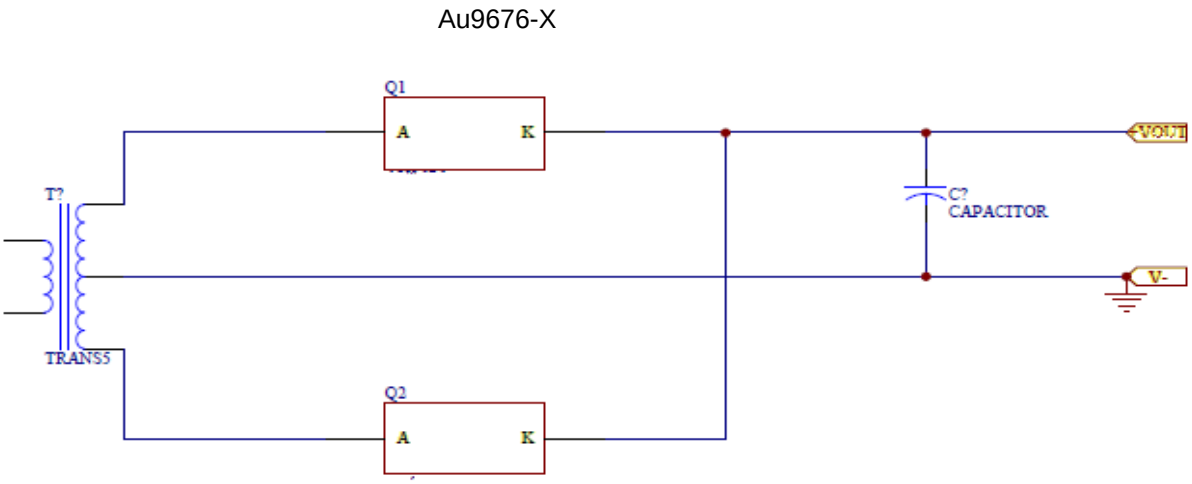
Maximum Ratings and Electrical Characteristics

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) Typical forward vlotage IF=5A Ta=25℃ Vout=12V	VF (mV) Typical forward vlotage IF=5A Ta=25℃ Vout=5V	Vdc(V) Maximum DC blocking voltage	IF(av.) (A) Maximum average forward rectifier current Tc=100℃	IFRM(A) Peak repetitive forward current	Iout(A) Suggested Load current	Pd (W) Max power dissipation	Tstg (℃) Storage temperature range
Au9676-J	6		30	120	480	30	40	-40 to +125
Au9676-F	24		40	80	320	10	40	-40 to +125
Au9676-A	15		40	120	480	15	40	-40 to +125
Au9676-G	10		40	200	600	20	40	-40 to +125
Au9676-H	60		60	80	320	8	40	-40 to +125
Au9676-K	12		60	150	600	15	40	-40 to +125
Au9676-M	14		85	130	390	12	40	-40 to +125
Au9676-B	40		100	50	160	7	40	-40 to +125
Au9676-C	30		100	80	320	10	40	-40 to +125
Au9676-D	25		100	100	380	12	40	-40 to +125
Au9676-S	10		100	140	420	30	40	-40 to +125
Au9676-N	30		120	100	300	10	40	-40 to +125
Au9676-E	100		150	50	130	6	40	-40 to +125
Au9676-V	50		150	80	300	20	40	-40 to +125
Au9676-Y	35		150	100	350	25	40	-40 to +125
Au9676-R	70		200	30	90	8	40	-40 to +125

Application

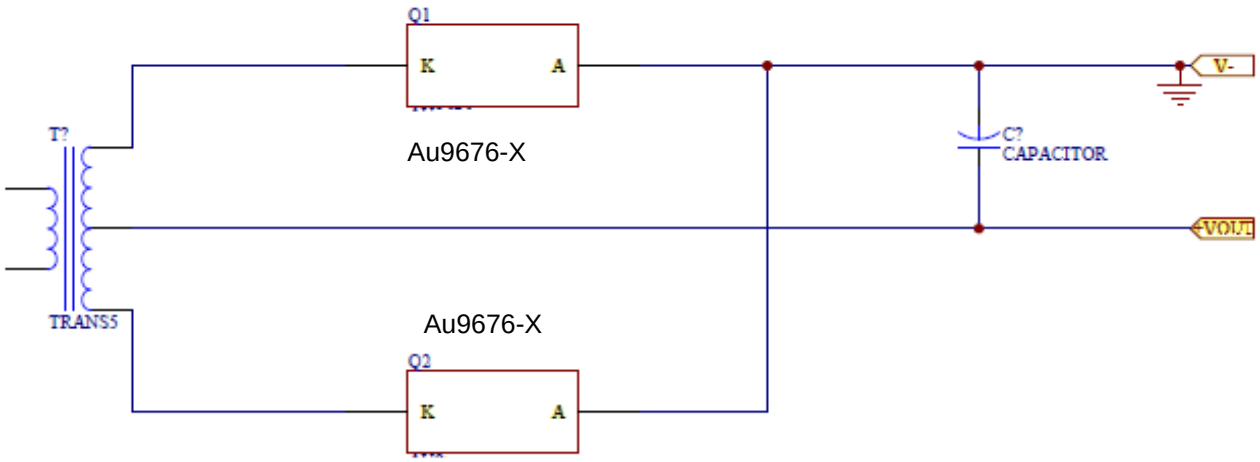
a.



Application Note :

If possible, it is a good way connecting heat sink to output capacitor cathode 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