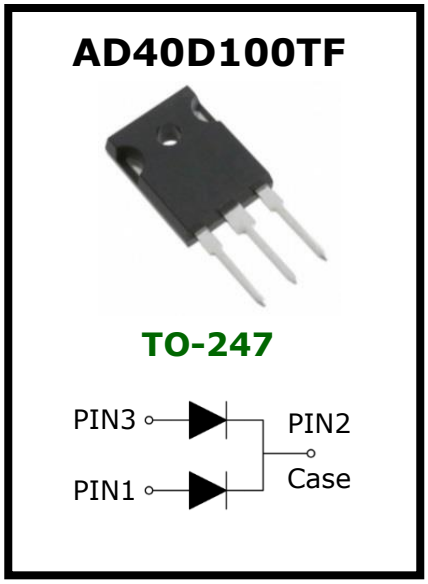
100V 40A Ultra Low VF Dual Schottky

Characteristics Summary

Characteristics	Values	Units
IF(AV)	20 X 2	A
V_{RRM}	100	V
V_{FBC} @ 10A, T_J = 25℃	0.54	V, typ.
T_J Operating Junction Temperature	-40 to +150	℃



Features

- Ultra Low Forward Voltage (VF) Drop Low Power Losses
- Low Leakage Current at high temperature.
- Reliable application for various circumstances.
- 150℃ Operating Junction Temperature
- Lead Free Finish, RoHS Compliant

Typical Applications

Device optimized for low forward voltage drop to maximize efficiency in Power Supply applications, high frequency converters, freewheeling diodes.

Maximum Ratings Characteristics

(TA = 25℃ unless otherwise specified)

Parameter	Symbol	Values	Units
DC Blocking Voltage	V_{RM}	100	V
Working Peak Reverse Voltage	V_{RWM}		V
Peak Repetitive Reverse Voltage	V_{RRM}		V
Average Rectified Forward Current Per device (Rated VR-20Khz Square Wave) – 50% duty cycle	I_D	20	A
Peak Forward Surge Current – 1/2 60hz	I_{FSM}	350	A
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	2.0	A
Typical Thermal Resistance (per leg)	$R\theta_{JC}$	1.6	℃ / W
Maximum Rate of Voltage Change (at Rated VR)	dv/dt	10,000	V/uS
Operating Junction Temperature	T_J	-40 to 150	℃
Storage Junction Temperature	T_{STG}	-40 to 150	

Electrical Characteristics – (per leg)

(TA = 25℃ unless otherwise specified)

Parameter	Test Conditions		Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 5A	TJ = 25℃	V_F*	0.45	----	Volts
	IF = 10A	TJ = 25℃		0.54	----	
	IF = 20A	TJ = 25℃		0.67	0.73	
		TJ = 125℃		0.60	0.67	
Instantaneous Reverse Current	VR = 100V	TJ = 25℃	IR*	10	50	uA
		TJ = 125℃		10	25	mA
* Pulse width < 300 uS, Duty cycle < 2%						

Characteristics Curves

(TA = 25℃ unless otherwise specified)

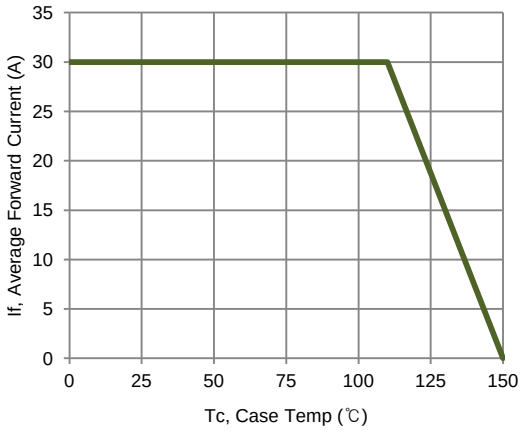


Figure 1 : Current Derating, Case

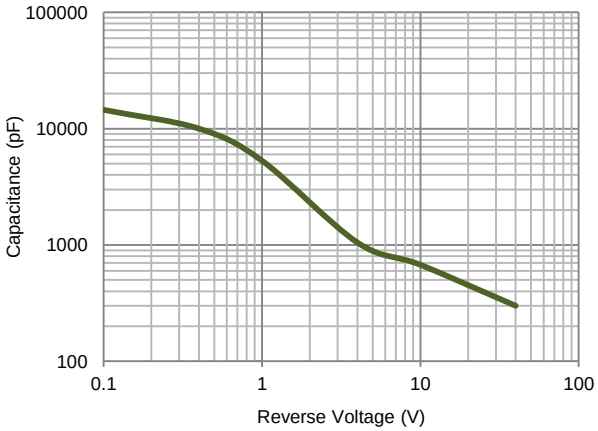


Figure 2 : Typical Junction Capacitance

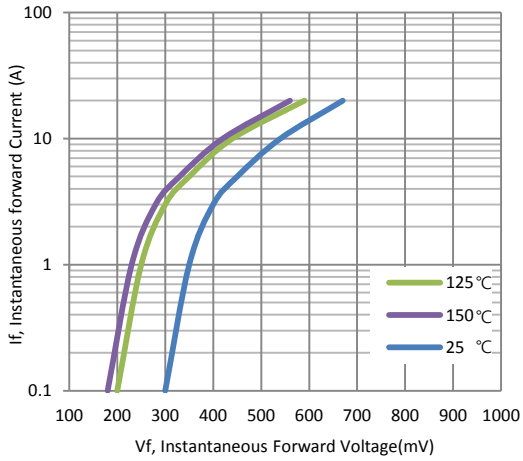


Figure 3 : Typical Forward Voltage

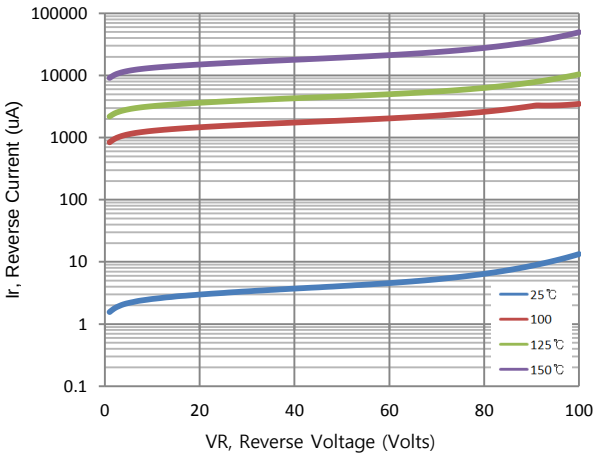


Figure 4: Typical Reverse Current

Ordering Information

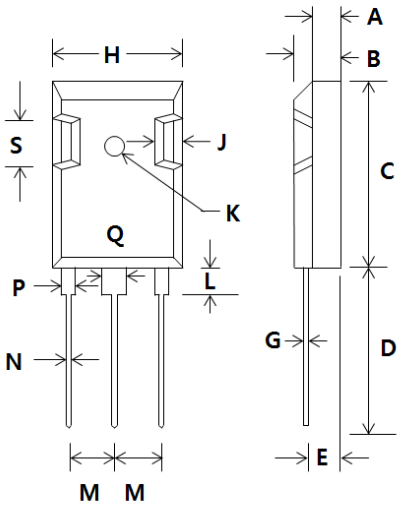
Part No	Package	Packing	Finish	Halogen	Packing Unit
AD40D100TF	TO-247	Tube : 30pcs	Sn	Free	2,250pcs

Marking Layout

1ST Line : Company logo
2nd Line : Device name + PKG CODE
- TF : TO-247 PKG code
3rd Line : Date code
- YY : Last one digit of calendar year
- WW : Work week calendar
- Z : ASS'Y SITE Code

Package Dimensions

TO-247



TO-3P / TO-247 unit : mm		
Dim	Min	Max
A	1.9	2.1
B	4.85	5.15
C	20.3	21.75
D	19.60	20.1
E	2.2	2.6
G	0.51	0.76
H	15.45	16.25
J	1.93	2.18
K	2.9Ø	3.2Ø
L	3.78	4.38
M	5.2	5.7
N	1.0	1.4
P	1.8	2.2
Q	2.8	3.2
S	4.4 Typ.	

Revision History

No	Date	Contents
0	2016-10-17	Initial Brief Datasheet Release

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