

300V 20A Ultra Low VF Schottky

Characteristics Summary

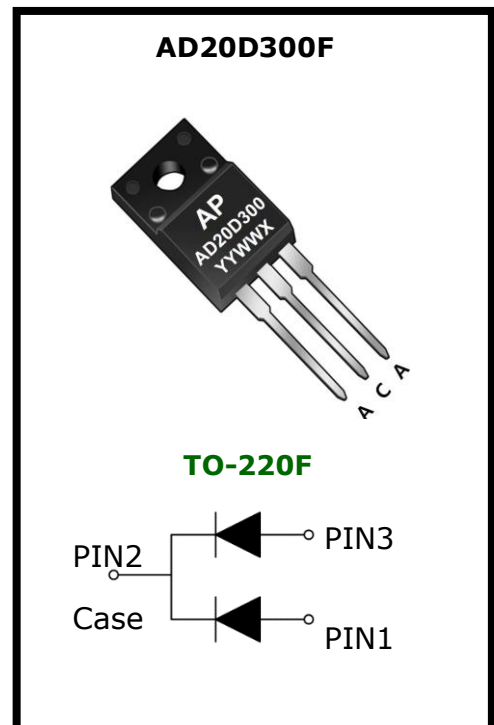
Characteristics	Values	Units
IF(AV)	10 X 2	A
VRRM	350	V
VF @ 5A, TJ = 25°C	0.75	V, typ.
TJ, Operating Junction Temperature	-40 to +150	°C

Features

- Ultra Low Forward Voltage (VF) Drop Low Power Losses
- Low Leakage Current at high temperature.
- Reliable application for various circumstances.
- 150°C 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 power LED converter, high frequency converters, freewheeling diodes.





Maximum Ratings Characteristics

(TA = 25°C unless otherwise specified)

Parameter	Symbol	Values	Units
DC Blocking Voltage	V _{RM}	350	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	10	A
Peak Forward Surge Current – 1/2 60hz	I _{FSM}	200	A
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I _{RRM}	1	A
Power Dissipation (T _J = 25°C)	P _D	50	W
Typical Thermal Resistance Package = TO-220F	R _{θJC}	2.5	°C / W
Isolation voltage (TO-220F only)	V _{AC}	1500	V
Maximum Rate of Voltage Change (at Rated VR)	dv/dt	10000	V/uS
Operating Junction Temperature	T _J	-40 to +150	°C
Storage Junction Temperature	T _{STG}	-40 to +150	

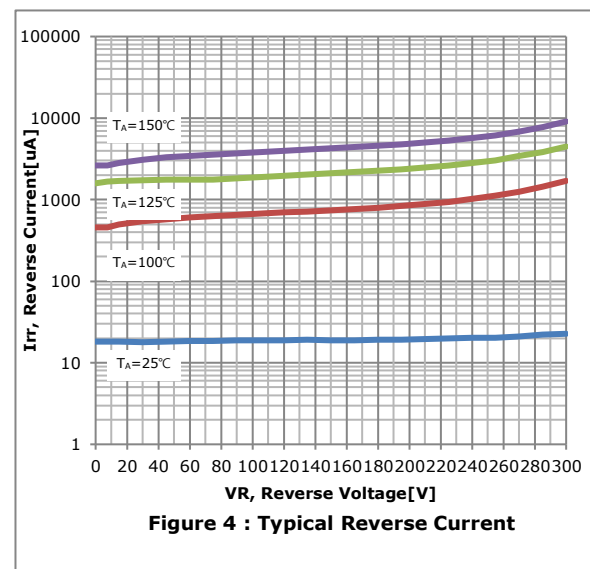
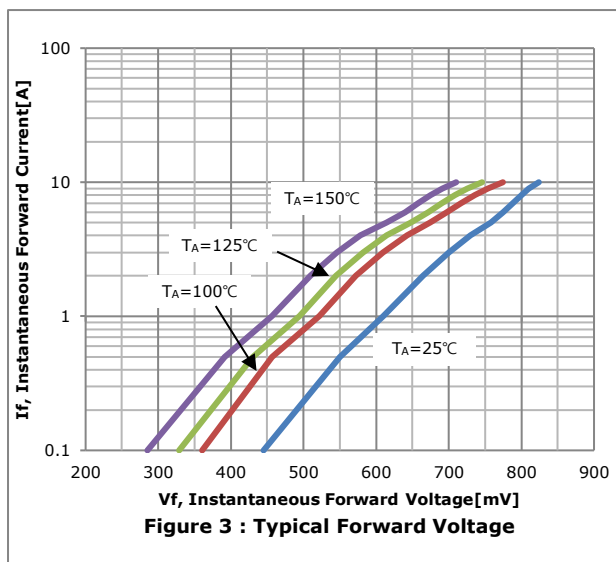
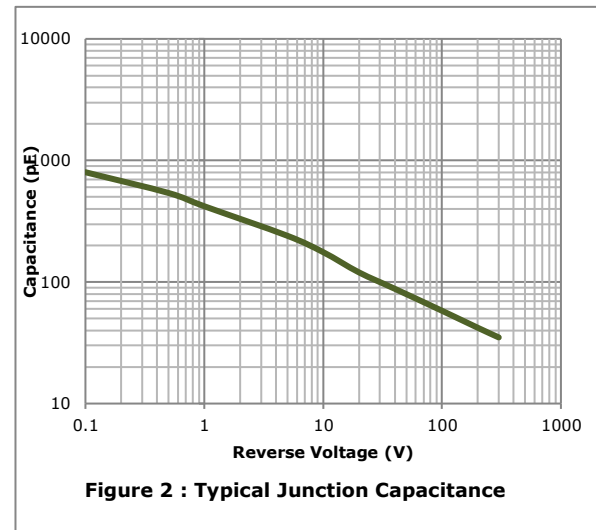
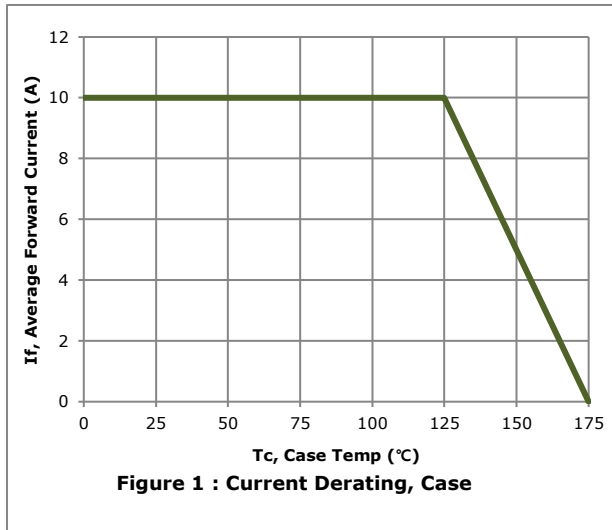
Electrical Characteristics – (per leg)

(TA = 25°C unless otherwise specified)

Parameter	Test Conditions		Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 2.5 A	TJ = 25°C	VF*	0.70	0.72	V
	IF = 5 A			0.75	0.78	
	IF = 10 A			0.82	0.85	
	IF = 2.5 A	0.52				
	IF = 5 A	0.63				
Instantaneous Reverse Current	VR = 300V	TJ = 25°C	IR*		65	uA
		TJ = 125°C			10	mA
* Pulse width < 300 uS, Duty cycle < 2%						

Characteristics Curves

($T_A = 25^\circ\text{C}$ unless otherwise specified)



Ordering Information

Part No	Package	Packing	Finish	Halogen	Packing Unit
AD20D300F	TO-220F	Tube	Sn	Free	5,000ea

Marking Layout

1ST Line : Company logo

2nd Line : Date code

- YY : Last two digit of calendar year
- WW : Work week calendar

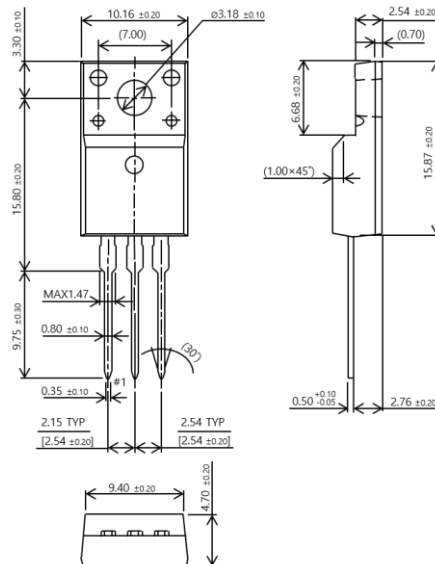
3rd Line : Device name + PKG CODE

- F : TO-220F PKG code



Package Dimensions

TO-220F



Revision History

No	Date	Contents
0	2021-08-11	Initial Brief Datasheet Release

<http://www.apsemi.com>

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