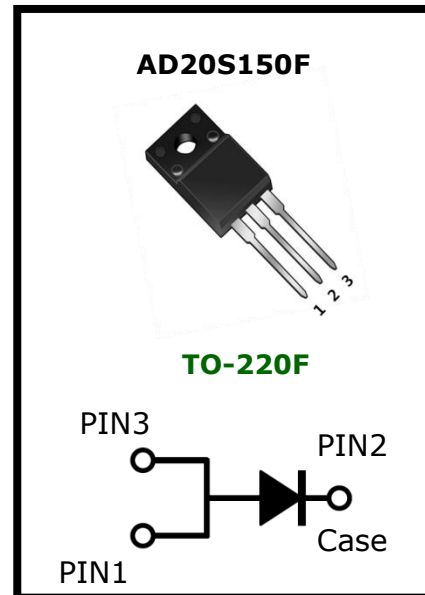


150V 20A Ultra Low VF Schottky

Characteristics Summary

Characteristics	Values	Units
IF(AV)	20	A
VRRM	150	V
V _F @ 5A, T _J = 25°C	0.59	V, typ.
V _F @ 10A, T _J = 25°C	0.70	
T _J 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 frequency converters, freewheeling diodes.



Maximum Ratings Characteristics

(TA = 25°C unless otherwise specified)

Parameter	Symbol	Values	Units
DC Blocking Voltage	V _{RM}	150	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}	200	A
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I _{RRM}	1	A
Typical Thermal Resistance Package = TO-220F	R _{θJC}	4	°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

(TA = 25°C unless otherwise specified)

Parameter	Test Conditions	Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 5 A	V _F *	0.59	0.72	V
	IF = 10 A		0.70	0.76	
	IF = 20 A		0.83	0.93	
	IF = 5 A	T _J = 125°C	0.50	----	
	IF = 10 A		0.57	----	
	IF = 20 A		0.65	----	
Instantaneous Reverse Current	VR = 100V	I _R *	----	40	uA
			----	20	mA
Junction Capacitance	V _R = 5V, f = 1MHz	C _J	489		pF

* Pulse width < 300 uS, Duty cycle < 2%

Characteristics Curves

(TA = 25°C unless otherwise specified)

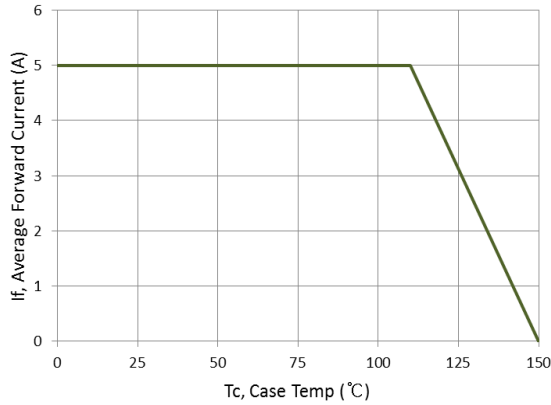


Figure 1 : Current Derating, Case

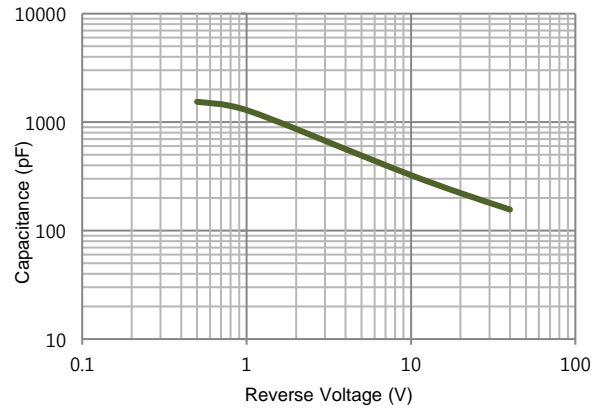


Figure 2 : Typical Junction Capacitance

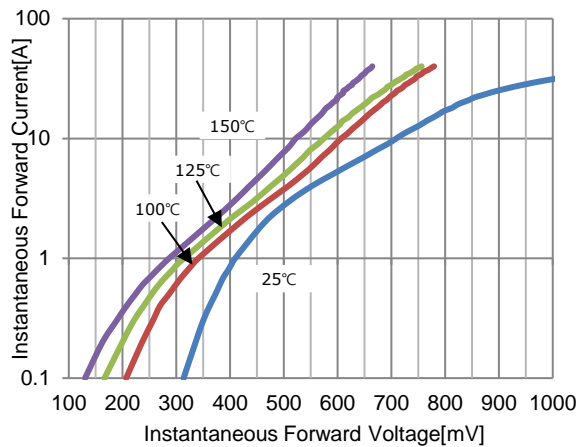


Figure 3 : Typical Forward Voltage

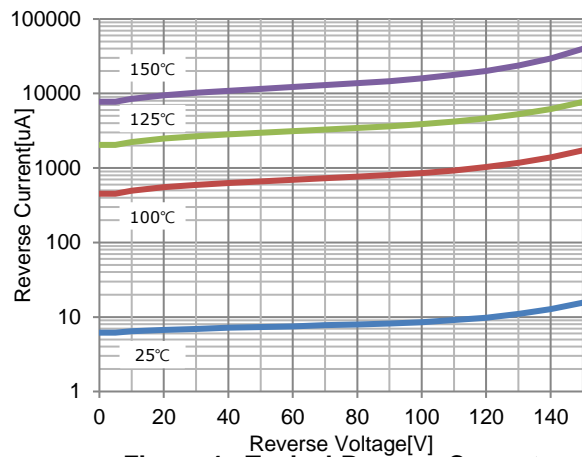
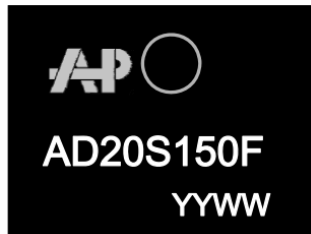


Figure 4 : Typical Reverse Current

Ordering Information

Part No	Package	Packing	Finish	Halogen	Packing Unit
AD20S150F	TO-220F	Tube	Sn	Free	5,000ea

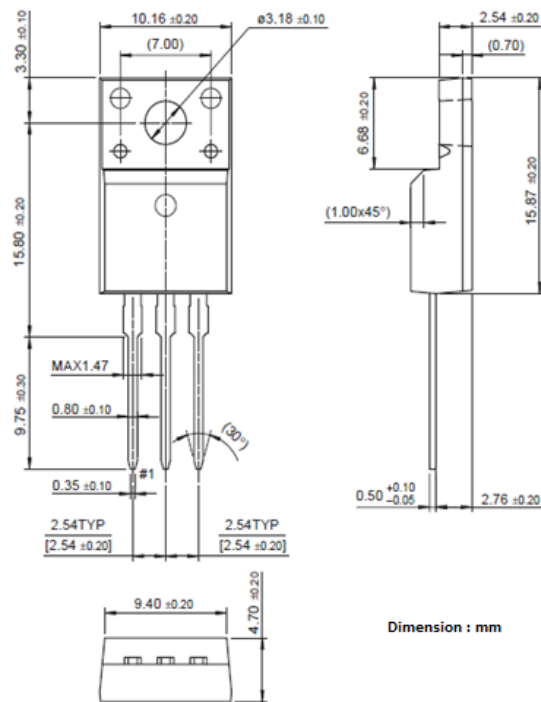
Marking Layout



AP : APsemi LOGO
 YY : 2-digit Year code
 WW : 2-digit Week Code

Package Dimensions

TO-220F





Revision History

No	Date	Contents
0	2017-01-03	Initial Brief Datasheet Release
1	2019-01-11	Junction Capacitance Updated

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