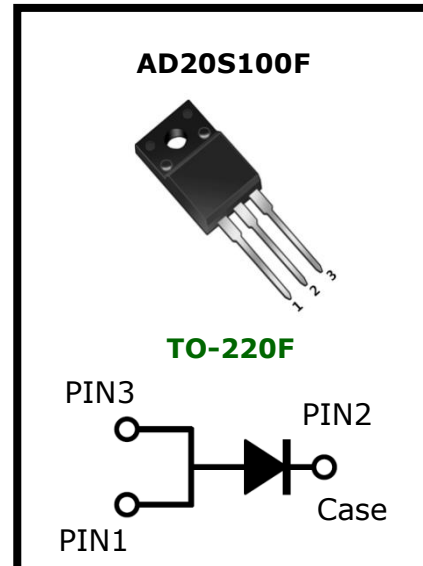


**100V 20A Ultra Low VF Schottky**

**Characteristics Summary**

Characteristics	Values	Units
IF(AV)	20	A
VRRM	100	V
VF @ 10A, Tj = 25°C	0.54	V, typ.
Tj, Operating Junction Temperature	-40 to +150	°C



**Features**

- Ultra Low Forward Voltage ( VF ) Drop
- Very Low Reverse Leakage in high temperature.
- Softest, fast switching capability
- 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.

- DC/DC Converters
- AC/DC Converters



## Maximum Ratings Characteristics

( TA = 25°C unless otherwise specified )

Parameter	Symbol	Values	Units
DC Blocking Voltage	V <sub>RM</sub>	100	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>		V
Average Rectified Forward Current Per device (Rated VR-20Khz Square Wave) – 50% duty cycle	I <sub>D</sub>	20	A
Peak Forward Surge Current – 1/2 60hz	I <sub>FSM</sub>	200	A
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I <sub>RRM</sub>	1	A
Typical Thermal Resistance Package = TO-220F	R <sub>θJC</sub>	4	°C / W
Isolation voltage (TO-220F only)	V <sub>AC</sub>	1500	V
Maximum Rate of Voltage Change ( at Rated VR)	dv/dt	10000	V/uS
Operating Junction Temperature	T <sub>J</sub>	-40 to +150	°C
Storage Junction Temperature	T <sub>STG</sub>	-40 to +150	

## Electrical Characteristics

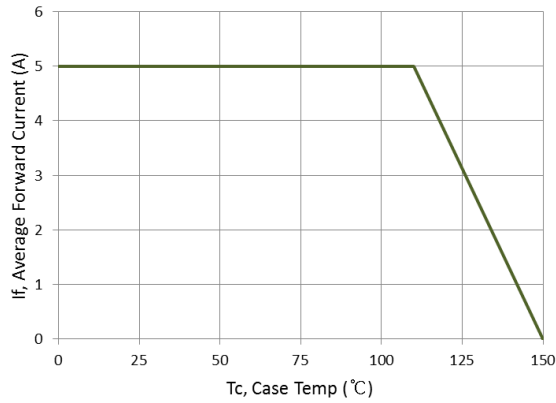
( TA = 25°C unless otherwise specified )

Parameter	Test Conditions	Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 5 A	V <sub>F</sub> *	0.46	-----	V
	IF = 10 A		0.54	0.57	
	IF = 20 A		0.65	0.71	
	IF = 20 A		-----	0.65	
Instantaneous Reverse Current	VR = 100V	I <sub>R</sub> *	17	40	uA
			10	20	mA

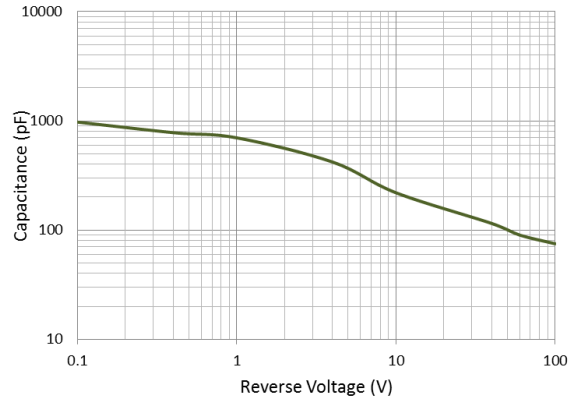
\* Pulse width < 300 uS, Duty cycle < 2%

## Characteristics Curves

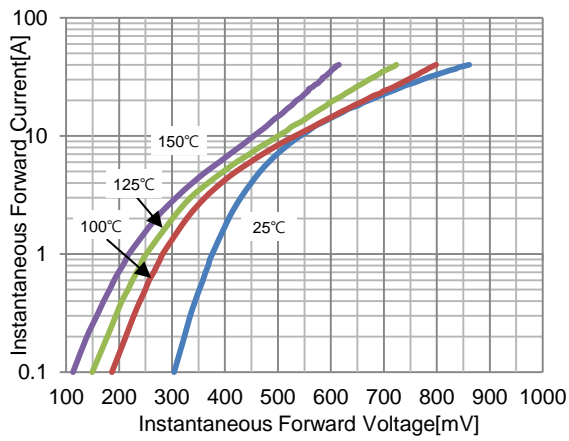
( TA = 25°C unless otherwise specified )



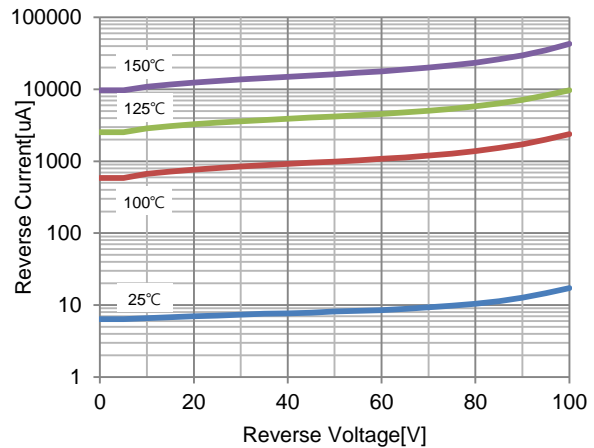
**Figure 1 : Current Derating, Case**



**Figure 2 : Typical Junction Capacitance**



**Figure 3 : Typical Forward Voltage**

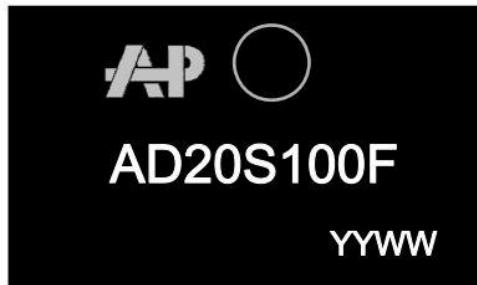


**Figure 4 : Typical Reverse Current**

## Ordering Information

Part No	Package	Packing	Finish	Halogen	Packing Unit
AD20S100F	TO-220F	Tube	Sn	Free	5,000ea

## Marking Layout



### LOGO IMAGE



**1<sup>ST</sup> Line : Company logo**

**2<sup>nd</sup> Line : Date code**

- YY : Last one digit of calendar year
- ww : Work week calendar

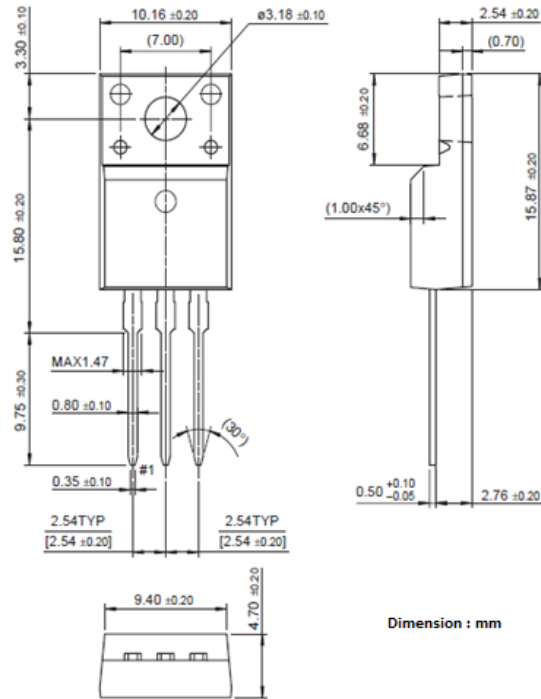
**3<sup>rd</sup> Line : Device name**

- F : TO-220F PKG code



### Package Dimensions

TO-220F





## Revision History

No	Date	Contents
0	2017-01-03	Initial Brief Datasheet Release

<http://www.apsemi.com>

### IMPORTANT NOTICE

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