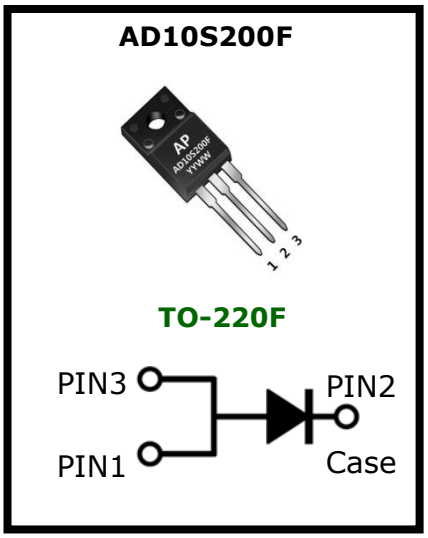
200V 10A Ultra Low VF Single Schottky

Characteristics Summary

Characteristics	Values	Units
IF(AV)	10	A
V_{RRM}	200	V
V_F @ 5A, T_J = 25℃	0.7	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}	200	V
Working Peak Reverse Voltage	V_{RWM}		V
Peak Repetitive Reverse Voltage	V_{RRM}		V
Average Rectified Forward Current	I_D	10	A
(Rated VR-20Khz Square Wave) – 50% duty cycle			
Peak Forward Surge Current – 1/2 60hz	I_{FSM}	235	A
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	1	A
Typical Thermal Resistance	$R\theta_{JC}$	4	℃ / 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	℃
Storage Junction Temperature	T_{STG}	-40 to +150	

Electrical Characteristics

(TA = 25℃ unless otherwise specified)

Parameter	Test Conditions		Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 3 A	TJ = 25℃	VF*	0.60	-----	V
	IF = 5 A			0.70	0.77	
	IF = 10 A			0.75	0.80	
	IF = 3 A	TJ = 125℃		0.53	-----	
	IF = 5 A			0.58	-----	
	IF = 10 A			0.63	-----	
Instantaneous Reverse Current	VR = 200V	TJ = 25℃	IR*	-----	40	uA
		TJ = 125℃		-----	20	mA
* Pulse width < 300 uS, Duty cycle < 2%						

Characteristics Curves

(TA = 25℃ unless otherwise specified)

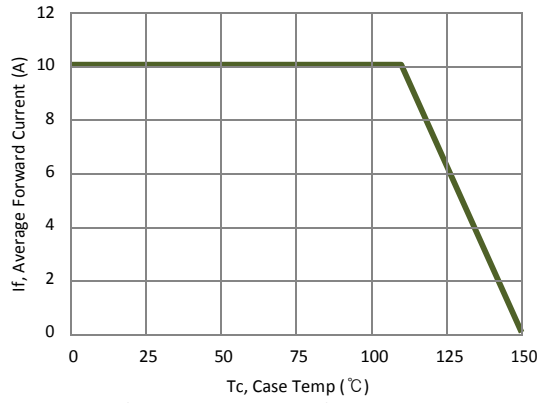


Figure 1 : Current Derating, Case

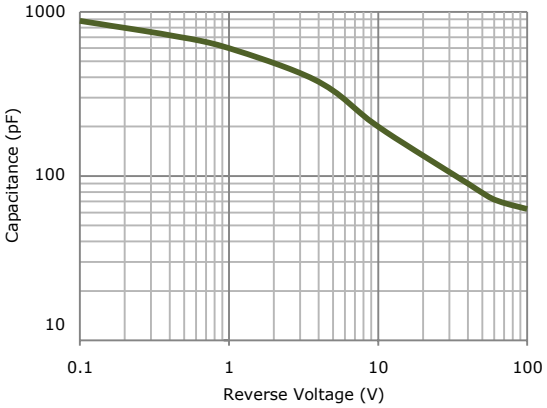


Figure 2 : Typical Junction Capacitance

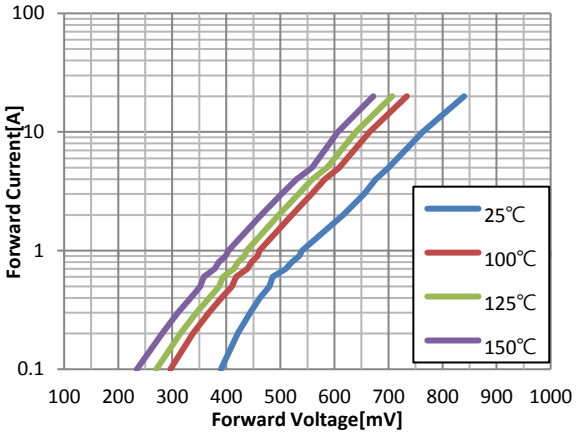


Figure 3 : Typical Forward Voltage

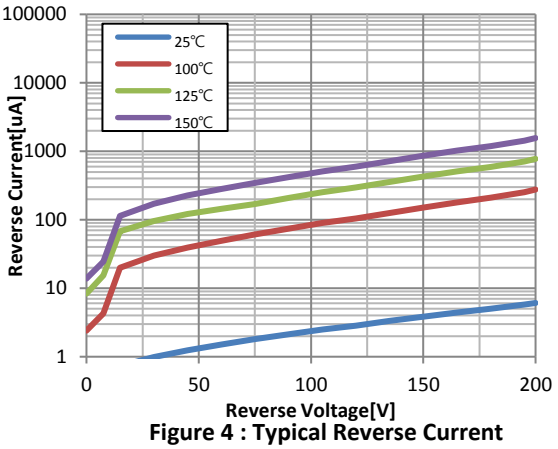
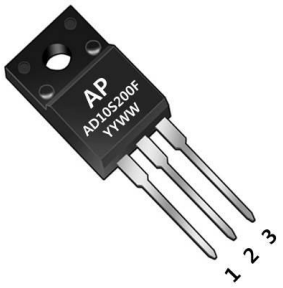


Figure 4 : Typical Reverse Current

Ordering Information

Part No	Package	Packing	Finish	Halogen	Packing Unit
AD10S200F	TO-220F	Tube	Sn	Free	5,000ea

Marking Layout



1ST Line : Company logo

2nd Line : Date code

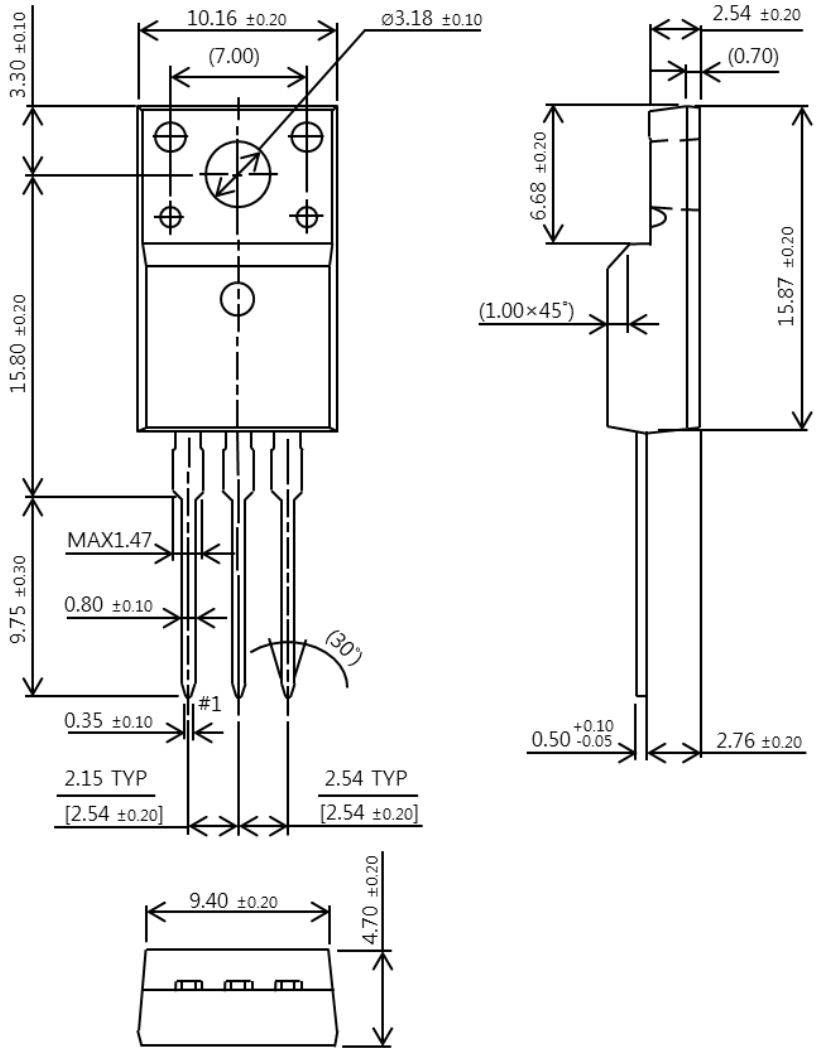
- **YY : Last two digit of calendar year**
- **WW : Work week calendar**

3rd Line : Device name + PKG CODE

-F: TO-220F PKG code

Package Dimensions

TO-220F



Revision History

No	Date	Contents
0	2017-09-22	Initial Brief Datasheet Release
1	2018-01-16	IFSM Update

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