

200V 3A Ultra LOW VF TMOS Schottky

Characteristics Summary

Characteristics	Values	Units
IF(AV)	3	A
VRRM	220	V
VF TYP @ 1.5A, TJ = 25°C	0.69	V
@ 3A, TJ = 25°C	0.75	V
IR _{MAX} @ TJ = 25°C	20	uA

Features

- Reduced low forward voltage drop (VF) ; better efficiency and cooler operation.
- Reduced high temperature reverse leakage; Increased reliability against thermal runaway failure in high temperature operation.
- Softest, fast switching capability
- 150°C Operating Junction Temperature
- Lead Free Finish, RoHS Compliant
- Excellent EMI characteristics because of low VF

Typical Applications

Device optimized for low forward voltage drop to suitable efficiency in general rectification applications.

· Boost Diode, Blocking Diode, Rectifier, Recirculating Diode

Maximum Ratings Characteristics - (TA = 25°C unless otherwise specified)

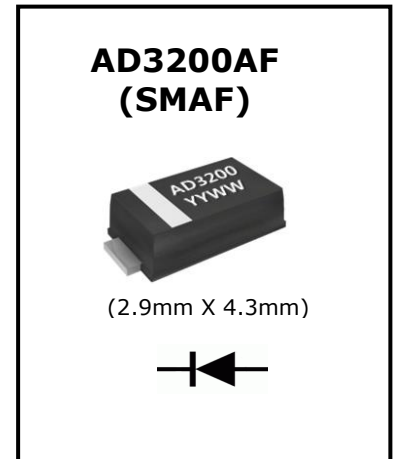
Parameter	Symbol	Values	Units
DC Blocking Voltage	VRM	220	V
Working Peak Reverse Voltage	VRWM	220	V
Peak Repetitive Reverse Voltage	VRRM	220	V
Average Rectified Forward Current	ID	3	A
(Rated VR-20Khz Square Wave) – 50% duty cycle			
Non-Repetitive Peak Forward Surge Current 8.3ms	IFSM	85	A
Typical Thermal Resistance Junction to Ambient (Note 1)	RθJC	32	°C / W
Typical Thermal Resistance Junction to Case (Note 1)	RθJA	93	°C / W
Operating Junction Temperature	TJ	-55 to +175	°C
Storage Junction Temperature	TSTG	-55 to +175	

Note 1 : FR-4 PCB, 2 oz Copper. Minimum recommended pad layout

Electrical Characteristics - (TA = 25°C unless otherwise specified)

Parameter	Test Conditions		Symbol	Typ.	Max.	Units
Forward Voltage	IF = 1.5 A	TJ = 25°C	VF*	0.69	0.75	V
	IF = 3 A			0.75	0.80	
	IF = 1.5 A	TJ = 125°C		0.58	-----	
	IF = 3 A			0.64	-----	
Reverse Current	VR = 200V	TJ = 25°C	IR*	2.5	20	uA
		TJ = 125°C		2	5	mA

* Short duration pulse test used to minimize self-heating effect.



Characteristics Curves

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

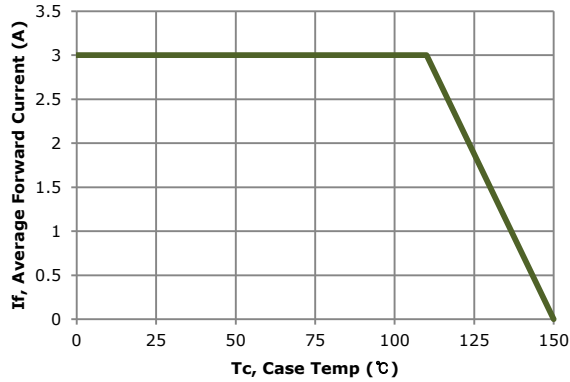


Figure 1 : Current Derating, Case

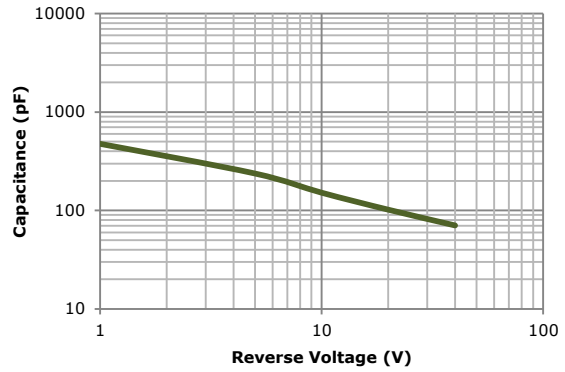


Figure 2 : Typical Junction Capacitance

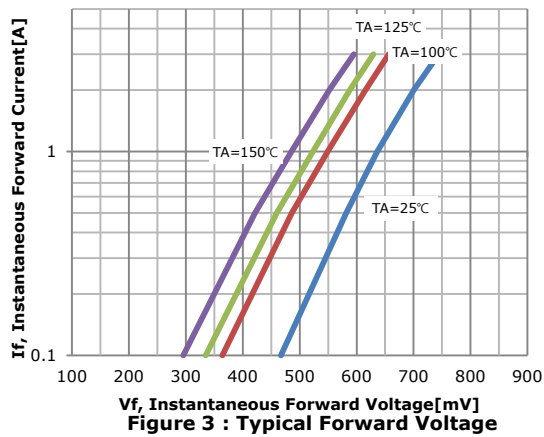


Figure 3 : Typical Forward Voltage

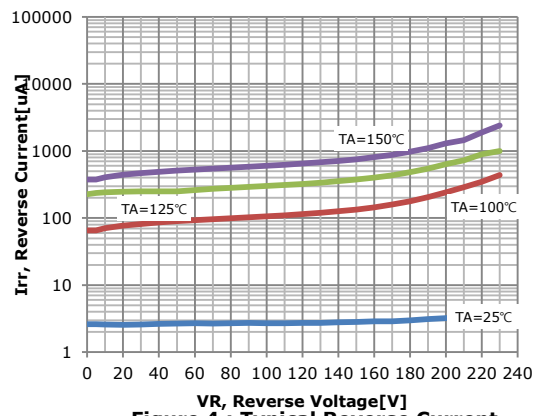
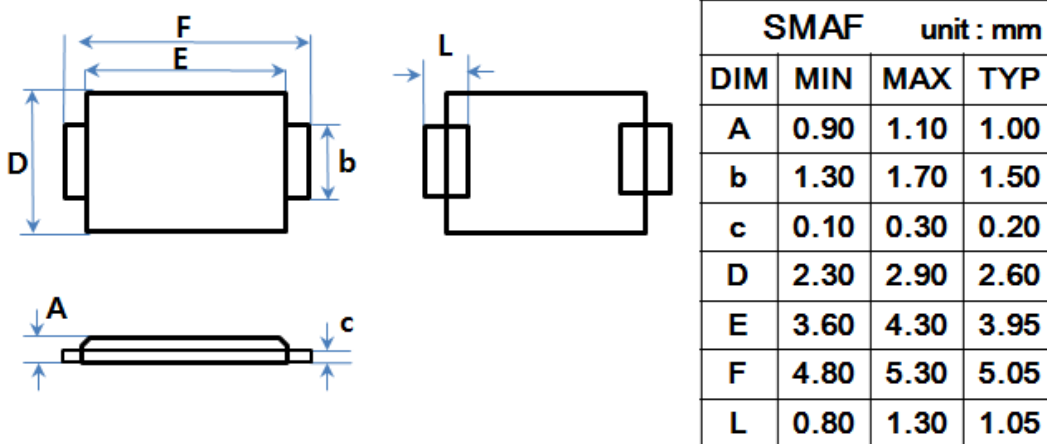


Figure 4 : Typical Reverse Current

Marking Layout

- 1ST Line : Device Name
- 2nd Line : Date Code
 - YY : Last two digits of calendar year
 - WW : Work week code

Package Dimensions



Ordering Information

Part No	Package	REEL	Finish	Packing Unit
AD3200AF	SMAF	7inch	Sn	3,000ea x 5reels = 15,000ea

Revision History



No	Date	Contents
00	2020-09-02	Initial Brief Datasheet Release

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