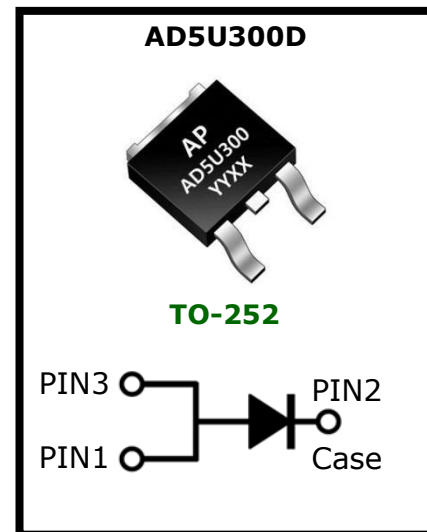


300V 5A Ultra Low VF Schottky

Characteristics Summary

Characteristics	Values	Units
IF(AV)	5	A
VRRM	300	V
VF @ 2.5A, TJ = 25°C	0.72	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 frequency converters, freewheeling diodes.



Maximum Ratings Characteristics

(TA = 25°C unless otherwise specified)

Parameter	Symbol	Values	Units
DC Blocking Voltage	V _{RM}	300	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	5	A
Peak Forward Surge Current – 1/2 60hz	I _{FSM}	150	A
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I _{RRM}	1	A
Typical Thermal Resistance	R _{θJC}	6	°C / W
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 = 2.5 A	TJ = 25°C	VF*	0.72	0.74	V
	IF = 5 A			0.77	0.80	
	IF = 2.5 A	TJ = 125°C		0.55		
	IF = 5 A			0.65		
Instantaneous Reverse Current	VR = 300V	TJ = 25°C	IR*		50	uA
		TJ = 125°C			10	mA
* Pulse width < 300 uS, Duty cycle < 2%						



Characteristics Curves

(TA = 25°C unless otherwise specified)

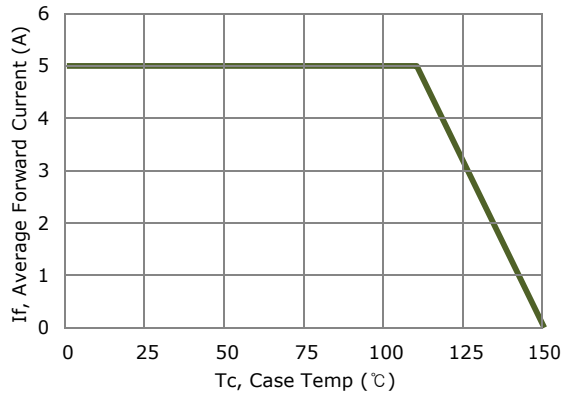


Figure 1 : Current Derating, Case

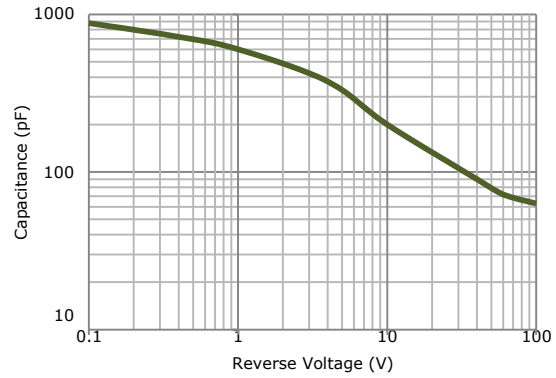


Figure 2 : Typical Junction Capacitance

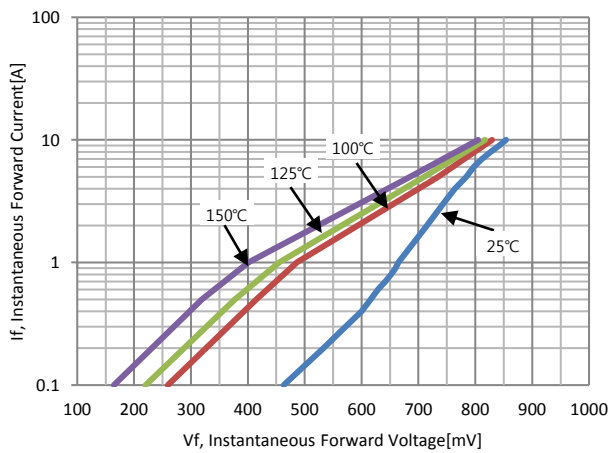


Figure 3 : Typical Forward Voltage

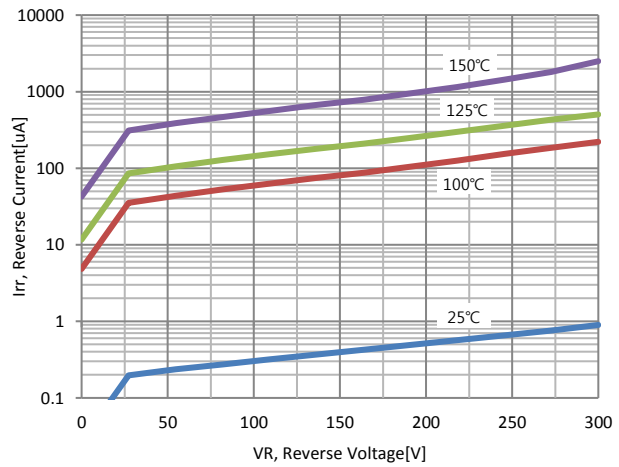


Figure 4 : Typical Reverse Current

Ordering Information

Part No	Package	Packing	Finish	Halogen	Packing Unit
AD5U300D	TO-252	Tape & Reel	Sn	Free	2,500ea

Marking Layout



1ST Line : Company logo

2nd Line : Date code

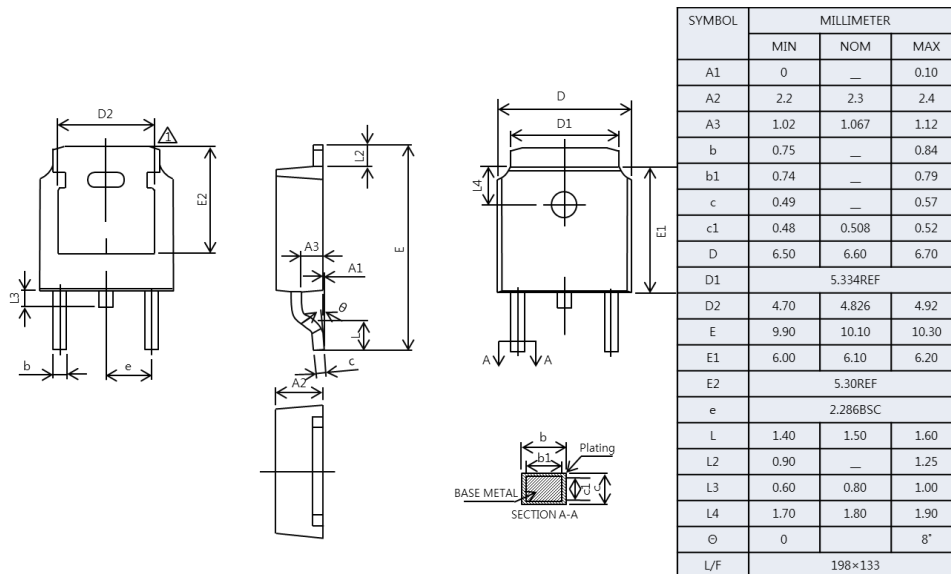
- YY : Last two digit of calendar year
- WW : Work week calendar

3rd Line : Device name + PKG CODE

- D : TO-252 PKG code

Package Dimensions

TO-252



Revision History

No	Date	Contents
0	2017-04-11	Initial Brief Datasheet Release

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