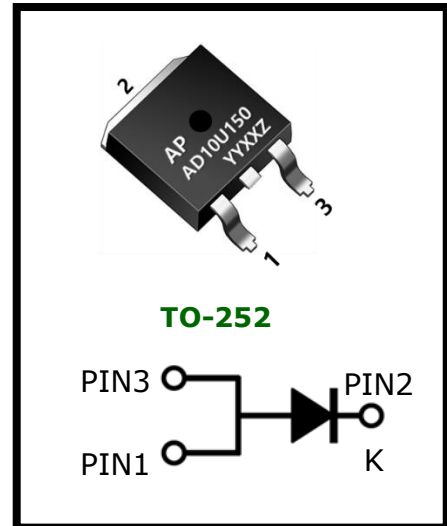


150V 10A Ultra Low VF Single Schottky

Characteristics Summary

Characteristics	Values	Units
IF(AV)	10	A
VRRM	150	V
VF @ 5A, TJ = 25°C	0.68	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}	150	V
Working Peak Reverse Voltage	V _{RWM}		V
Peak Repetitive Reverse Voltage	V _{RRM}		V
Average Rectified Forward Current (Rated VR-20Khz Square Wave) – 50% duty cycle	I _D	10	A
Peak Forward Surge Current – 1/2 60hz	I _{FSM}	150	A
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I _{RRM}	1	A
Power Dissipation (T _J = 25°C)	P _D	21	W
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 = 5 A	TJ = 25°C	VF*	0.68	0.71	V
	IF = 10 A			0.77	0.80	
	IF = 5 A	TJ = 125°C		0.61	-----	
	IF = 10 A			0.68	-----	
Instantaneous Reverse Current	VR = 150V	TJ = 25°C	IR*	-----	30	uA
		TJ = 125°C		-----	20	mA
Junction Capacitance	VR = 5V, f = 1MHz		CJ	295		pF
* Pulse width < 300 uS, Duty cycle < 2%						

Characteristics Curves

(TA = 25°C unless otherwise specified)

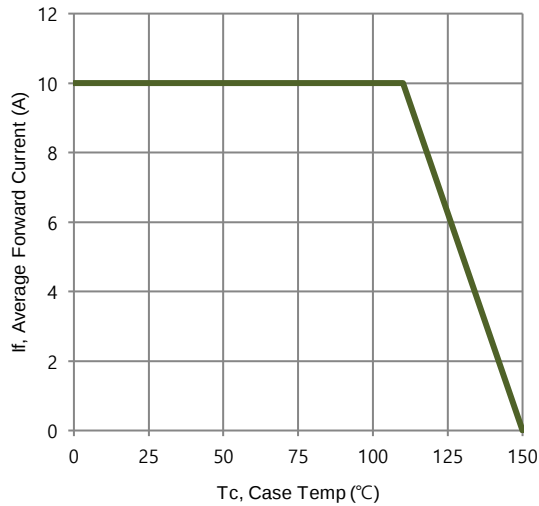


Figure 1 : Current Derating, Case

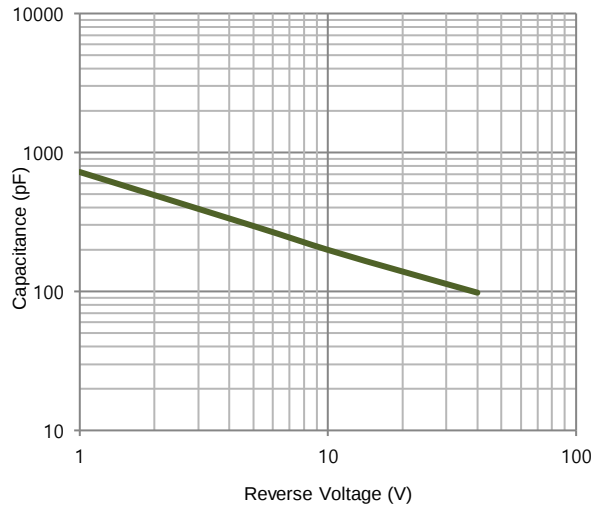


Figure 2 : Typical Junction Capacitance

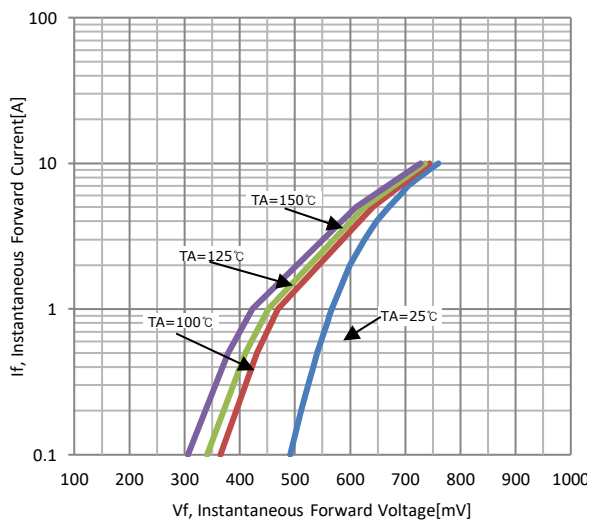


Figure 3 : Typical Forward Voltage

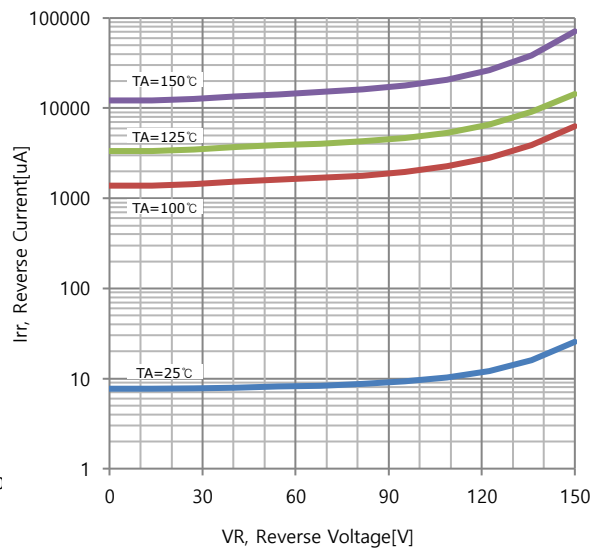
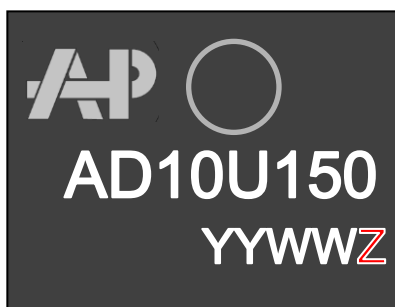


Figure 4 : Typical Reverse Current

Ordering Information

Part No	Package	Packing	Finish	Halogen	Packing Unit
AD10U150D	TO-252	REEL	Sn	Free	2,500ea

Marking Layout



1ST Line : Company logo

2nd Line : Device name

-DEVICE : AD10U150

3rd Line : Date code + Assembly site code

- YY : Last two digits of calendar year

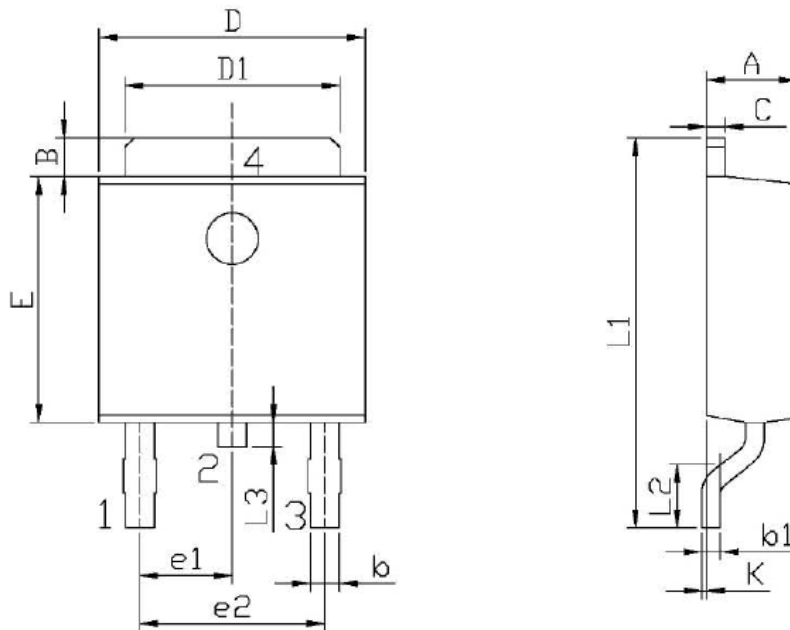
- WW : Work week calendar

- Z : assembly site code



Package Dimensions

TO-252



单位: mm

Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
	Min	Max		Min	Max
A	2.20	2.40	E	5.95	6.25
B	0.95	1.25	e1	2.24	2.34
b	0.50	0.70	e2	4.43	4.73
b1	0.45	0.55	L1	9.45	9.95
C	0.45	0.55	L2	1.25	1.75
D	6.45	6.75	L3	0.60	0.90
D1	5.10	5.50	K	0.00	0.10



Revision History

No	Date	Contents
0	2021-05-04	Initial Brief Datasheet Release

<http://www.apsemi.com>

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