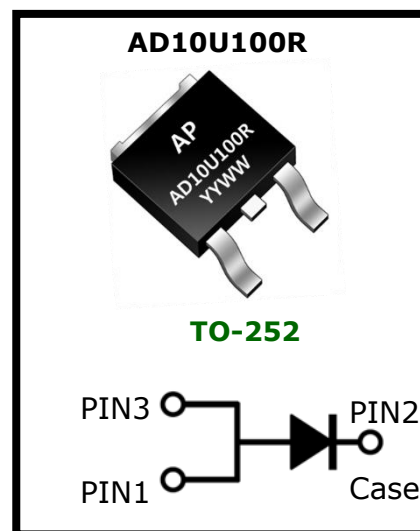


100V 10A Ultra Low VF Schottky

Characteristics Summary

Characteristics	Values	Units
IF(AV)	10	A
VRRM	100	V
VF @ 5A, TJ = 25°C	0.49	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.



Maximum Ratings Characteristics

(TA = 25°C unless otherwise specified)

Parameter	Symbol	Values	Units
DC Blocking Voltage	V _{RM}	100	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}	145	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 = 3 A	TJ = 25°C	VF*	0.42	-----	V
	IF = 5 A			0.49	0.54	
	IF = 10 A			0.59	0.65	
	IF = 3 A	TJ = 125°C		0.36	-----	
	IF = 5 A			0.41	-----	
	IF = 10 A			0.54	-----	
Instantaneous Reverse Current	VR = 100V	TJ = 25°C	IR*	-----	60	uA
		TJ = 125°C		-----	20	mA
Junction Capacitance	VR = 5V, f = 1MHz		CJ	507		pF
* Pulse width < 300 uS, Duty cycle < 2%						

Characteristics Curves

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

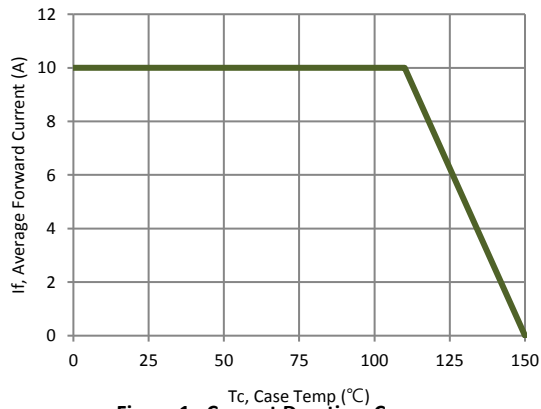


Figure 1 : Current Derating, Case

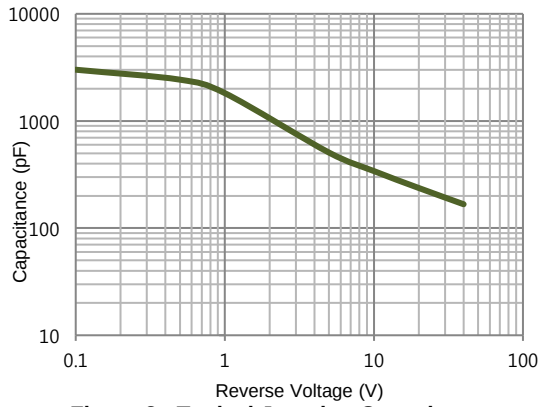


Figure 2 : Typical Junction Capacitance

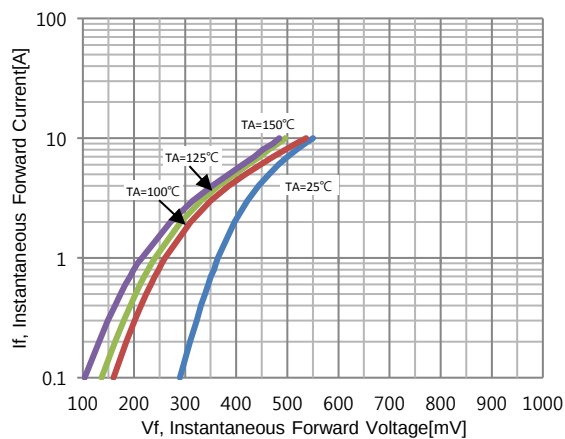


Figure 3 : Typical Forward Voltage

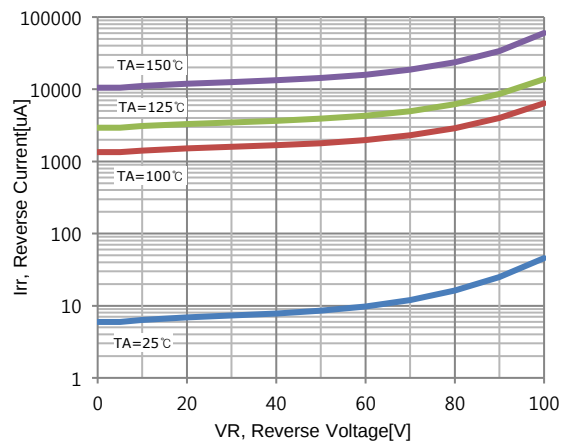


Figure 4 : Typical Reverse Current

Ordering Information

Part No	Package	Packing	Finish	Halogen	Packing Unit
AD10U100R	TO-252	Tape & Reel	Sn	Free	2,500ea

Marking Layout



1ST Line : Company logo

2nd Line : Date code

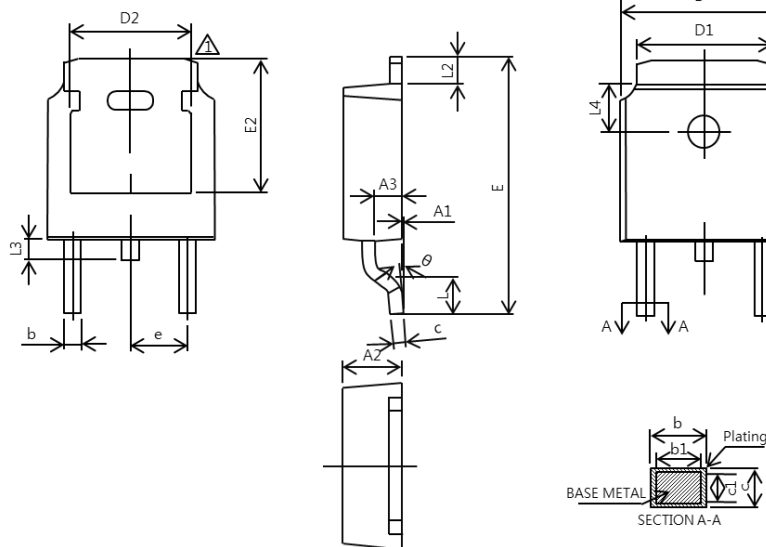
- YY : Last two digit of calendar year
- WW : Work week calendar

3rd Line : Device name + PKG CODE

-R: TO-252 PKG code

Package Dimensions

TO-252



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A1	0	—	0.10
A2	2.2	2.3	2.4
A3	1.02	1.067	1.12
b	0.75	—	0.84
b1	0.74	—	0.79
c	0.49	—	0.57
c1	0.48	0.508	0.52
D	6.50	6.60	6.70
D1	5.334REF		
D2	4.70	4.826	4.92
E	9.90	10.10	10.30
E1	6.00	6.10	6.20
E2	5.30REF		
e	2.286BSC		
L	1.40	1.50	1.60
L2	0.90	—	1.25
L3	0.60	0.80	1.00
L4	1.70	1.80	1.90
Θ	0		8°
L/F	198×133		



Revision History

No	Date	Contents
0	2016-12-27	Initial Brief Datasheet Release
1	2018-01-16	IFSM Update
2	2019-01-07	Junction Capacitance Updated

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