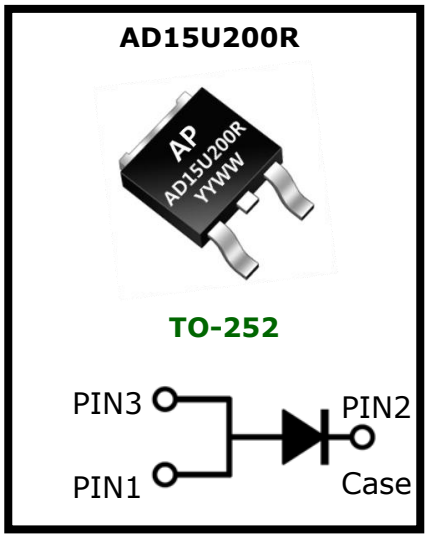
200V 15A Ultra Low VF Schottky

Characteristics Summary

Characteristics	Values	Units
IF(AV)	15	A
V_{RRM}	200	V
V_F @ 5A, T_J = 25℃	0.69	V, typ.
T_J, Operating Junction Temperature	-40 to +150	℃



Features

- Ultra Low Forward Voltage (VF) Drop
- Very Low Reverse Leakage in high temperature.
- Softest, fast switching capability
- 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.

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 (Rated VR-20Khz Square Wave) – 50% duty cycle	I_D	15	A
Peak Forward Surge Current – 1/2 60hz	I_{FSM}	100	A
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	1	A
Typical Thermal Resistance	$R\theta_{JC}$	6	℃ / W
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 = 5 A	TJ = 25℃	VF*	0.69	0.74	V
	IF = 10 A			0.75	0.83	
	IF = 15 A			0.81	0.91	
	IF = 5 A	TJ = 125℃		0.52	----	
	IF = 10 A			0.56	----	
	IF = 15 A			0.58	----	
Instantaneous Reverse Current	VR = 200V	TJ = 25℃	IR*	15	50	uA
		TJ = 125℃		----	20	mA
Junction Capacitance	V_R = 5V, f = 1MHz		C_J	351		pF
* Pulse width < 300 uS, Duty cycle < 2%						

Characteristics Curves

(TA = 25℃ unless otherwise specified)

Figure 1 : Current Derating, Case

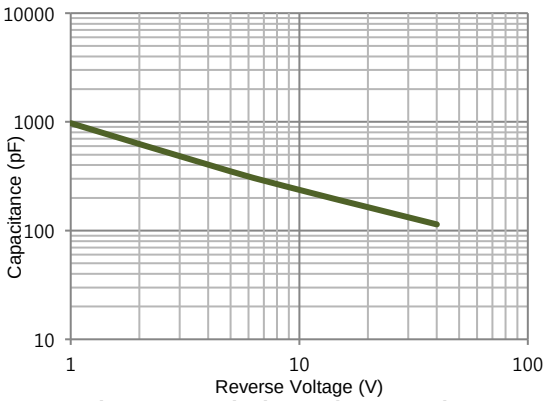


Figure 2 : Typical Junction Capacitance

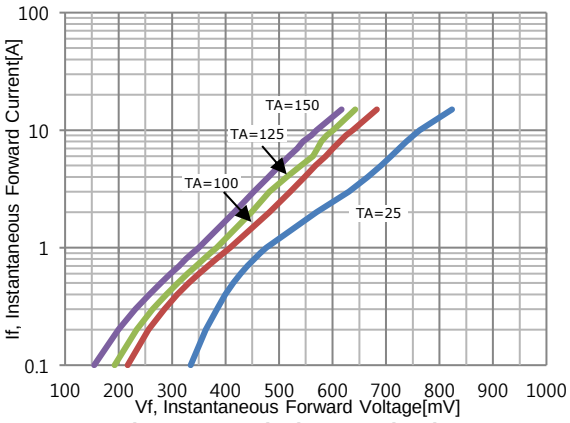


Figure 3 : Typical Forward Voltage

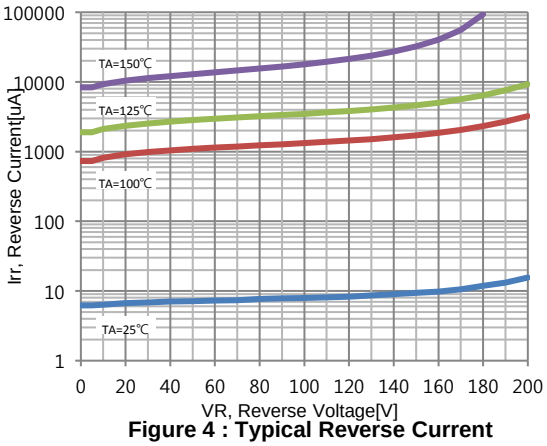


Figure 4 : Typical Reverse Current

Ordering Information

Part No	Package	Packing	Finish	Halogen	Packing Unit
AD15U200R	TO-252	Tape & Reel	Sn	Free	2,500ea

Marking Layout

1ST Line : Company logo

2nd Line : Date code

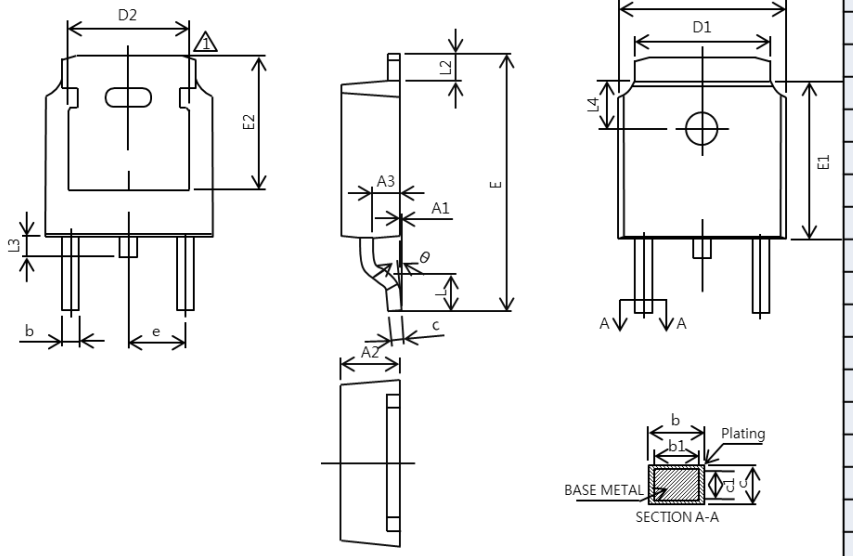
- **YY : Last two digit of calendar year**
- **WW : Work week calendar**

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	2017-01-27	Initial Brief Datasheet Release
1	2019-01-11	Junction Capacitance Updated

http://www.apsemi.com

IMPORTANT NOTICE

AP Semiconductor co, Ltd reserves the right to make changes without further notice to any products or specifications herein. AP Semiconductor co, Ltd does not assume any responsibility for use of any its products for any particular purpose, nor does AP Semiconductor co, Ltd assume any liability arising out of the application or use of any its products or circuits. AP Semiconductor co, Ltd does not convey any license under its patent rights or other rights nor the rights of others.

AP Semiconductor Co., Ltd

Contact. Tel 82.70.4693.2299 FAX 82.70.4000.4009

E-mail: sales@apsemi.com