

# Stud-Mounted Silicon Rectifier Diodes, 15 A



15 A

### **DESCRIPTION/FEATURES**

- Low thermal impedance
- High case temperature
- Excellent reliability
- Maximum design flexibility
- Can be made to meet stringent military, aerospace and other high reliability requirements
- RoHS compliant

MAJOR RATINGS AND CHARACTERISTICS				
PARAMETER	TEST CONDITIONS	VALUES	UNITS	
I <sub>F(AV)</sub>		15 <sup>(1)</sup>	A	
	Tc	150 <sup>(1)</sup>	°C	
I <sub>FSM</sub>	50 Hz	239	— A	
	60 Hz	250 (1)		
l <sup>2</sup> t	50 Hz	286	— A <sup>2</sup> s	
	60 Hz	260		
l²√t		3870	A²√s	
V <sub>RRM</sub>	Range	50 to 600	V	
TJ		- 65 to 175	٥°	

#### Note

(1) JEDEC registered values

**PRODUCT SUMMARY** 

I<sub>F(AV)</sub>

#### **ELECTRICAL SPECIFICATIONS**

VOLTAGE RATINGS						
TYPE NUMBER		V <sub>RRM</sub> , MAXIMUM REPETITIVE PEAK REVERSE VOLTAGE V	V <sub>RM</sub> , MAXIMUM DIRECT REVERSE VOLTAGE V			
CATHODE TO CASE	ANODE TO CASE	T <sub>J</sub> = - 65 °C TO 175 °C	T <sub>J</sub> = - 65 °C TO 175 °C			
1N3208	1N3208R	50 <sup>(1)</sup>	50 <sup>(1)</sup>			
1N3209	1N3209R	100 (1)	100 (1)			
1N3210	1N3210R	200 (1)	200 (1)			
1N3211	1N3211R	300 (1)	300 (1)			
1N3212	1N3212R	400 (1)	400 (1)			
1N3213	1N3213R	500 (1)	500 (1)			
1N3214	1N3214R	600 (1)	600 (1)			

Note

(1) JEDEC registered values

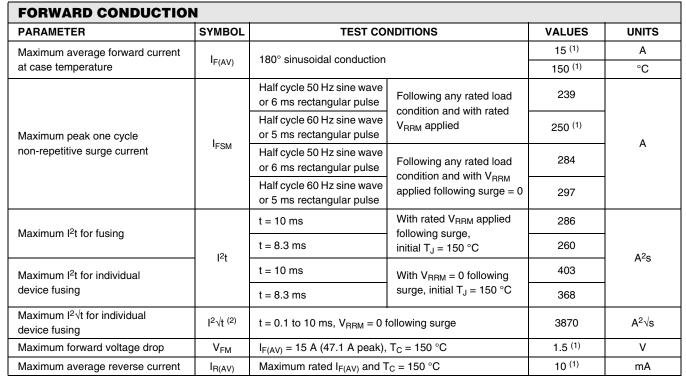




# 1N3208 Series

Vishay High Power Products

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#### Notes

(1) JEDEC registered values

<sup>(2)</sup> I<sup>2</sup>t for time  $t_x = I^2 \sqrt{t} x \sqrt{t_x}$ 

THERMAL AND MECHANICAL SPECIFICATIONS							
PARAMETER		SYMBOL	TEST CONDITIONS	VALUES	UNITS		
Maximum junction operating and storage temperature range		T <sub>J</sub> , T <sub>Stg</sub>		- 65 to 175 <sup>(1)</sup>	°C		
Maximum internal thermal resistance, junction to case		R <sub>thJC</sub>	DC operation	0.65	0000		
Thermal resistance, case to sink		R <sub>thCS</sub>	Mounting surface, smooth, flat and greased	0.25	- °C/W		
Mounting torque	minimum		Non-lubricated threads	2.3 (20)	N·m		
	maximum		Non-Inducated Inteads	3.5 (30)	(lbf · in)		
Weight				28.5	g		
				1	oz.		
Case style			JEDEC	DO-203AB (DO-5)			

Note

<sup>(1)</sup> JEDEC registered values



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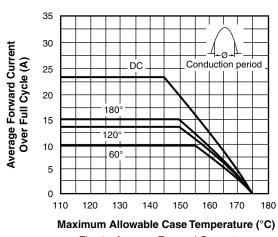
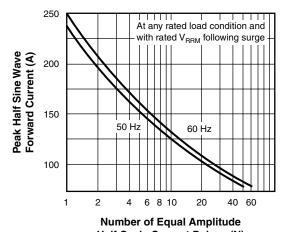


Fig. 1 - Average Forward Current vs. Maximum Allowable Case Temperature



Half Cycle Current Pulses (N) Fig. 2 - Maximum Non-Repetitive Surge Current vs. Number of Current Pulses

Instantaneous Forward Current (A)

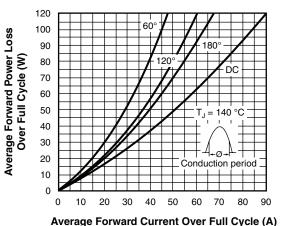


Fig. 3 - Maximum Low Level Forward Power Loss vs. Average Forward Current

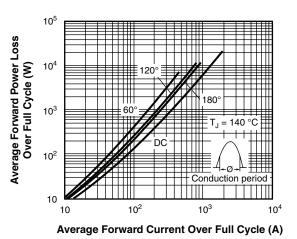
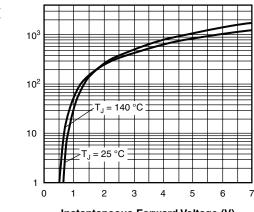


Fig. 4 - Maximum High Level Forward Power Loss vs. Average Forward Current



Instantaneous Forward Voltage (V)

Fig. 5 - Maximum Forward Voltage vs. Forward Current

LINKS TO RELATED DOCUMENTS		
Dimensions	http://www.vishay.com/doc?95360	



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