

## 1N3208 SERIES

### 15 Amp Stud-mounted Silicon Rectifier Diodes

#### Major Ratings and Characteristics

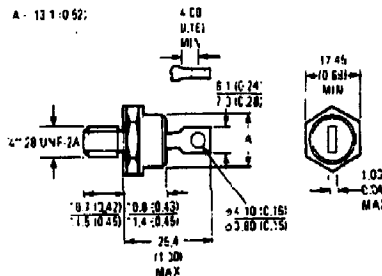
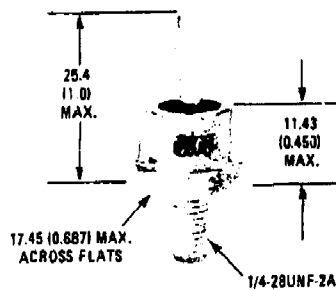
	1N3208	Units
$I_F$ (AV)	15*	A
$\theta_{TC}$	150*	$^{\circ}C$
$I_{cSM}$	@ 50 Hz	239
	@ 60 Hz	250*
$I_{2T}$	@ 50 Hz	286
	@ 60 Hz	260
$I_{2\sqrt{T}}$	3870	$A^2\sqrt{s}$
VRRM Range	50-600	V

\*JEDEC registered values.

#### 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.

#### CASE STYLE AND DIMENSIONS



Conforms TO JEDEC Outline DO-203AB (DO-6)  
 All Dimensions in Millimeters and Inches

# New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.  
SPRINGFIELD, NEW JERSEY 07081  
U.S.A.

TELEPHONE: (973) 376-2922  
(212) 227-6005  
FAX: (973) 376-8960

## VOLTAGE RATINGS

Part Number		V <sub>RRM</sub> - Max. Repetitive Peak Reverse Voltage (V)	V <sub>R</sub> - Max. Direct Reverse Voltage (V)
cathode-to-case	anode-to-case	T <sub>J</sub> = -85°C to 175°C	T <sub>J</sub> = -85°C to 175°C
1N3208	1N3208R	50*	50*
1N3209	1N3209R	100*	100*
1N3210	1N3210R	200*	200*
1N3211	1N3211R	300*	300*
1N3212	1N3212R	400*	400*
1N3213	1N3213R	500*	500*
1N3214	1N3214R	600*	600*

## ELECTRICAL SPECIFICATIONS

		Units	Conditions
I <sub>F(AV)</sub>	Max. average forward current	15*	A
I <sub>FSM</sub>	Max. peak one-cycle non-repetitive surge current	239	180° sinusoidal conduction, max. T <sub>C</sub> = 150°C*
		250*	Half cycle 60 Hz sine wave or 6 ms rectangular pulse
		284	Following any rated load condition and with rated V <sub>RRM</sub> applied
		297	Half cycle 60 Hz sine wave or 6 ms rectangular pulse
I <sub>2t</sub>	Max. I <sub>2t</sub> for fusing	288	Following any rated load condition and with V <sub>RRM</sub> applied following surge = 0.
		260	Half cycle 60 Hz sine wave or 5 ms rectangular pulse
		403	Following any rated load condition and with V <sub>RRM</sub> applied following surge = 0.
		368	Half cycle 60 Hz sine wave or 5 ms rectangular pulse
I <sub>2</sub> √t	Max. I <sub>2</sub> √t for individual device fusing	3870	t = 10 ms With rated V <sub>RRM</sub> applied following surge, initial T <sub>J</sub> = 150°C.
			t = 8.3 ms T <sub>J</sub> = 150°C.
I <sub>2</sub> √t	Max. I <sub>2</sub> √t for individual device fusing		t = 10 ms With V <sub>RRM</sub> = 0 following surge, initial T <sub>J</sub> = 150°C.
			t = 8.3 ms
V <sub>FM</sub>	Max. peak forward voltage	1.5*	V
I <sub>R(AV)</sub>	Max. average reverse current	10*	mA

## THERMAL MECHANICAL SPECIFICATIONS

T <sub>J</sub>	Max. operating junction temperature range	-85 to 175*	°C	
T <sub>stg</sub>	Max. storage temperature range	-85 to 175*	°C	
R <sub>thJC</sub>	Max. internal thermal resistance, junction-to-case	0.65	deg C/W	DC operation
R <sub>thCS</sub>	Thermal resistance, case-to-sink	0.25	deg C/W	Mounting surface flat, smooth, and gressed
T	Mounting torque	Min. 2.3 (20) Max. 3.5 (30)	N·m (lbf-in)	Non-lubricated threads
wt	Approximate weight	28.5 (1)	g (oz)	
	Case style	DO-203AB(DO-5)		JEDEC

\* JEDEC registered values.

① I<sub>2t</sub> for time t<sub>x</sub> = I<sub>2</sub>√t<sub>x</sub> · √t<sub>x</sub>