

# DIGITRON SEMICONDUCTORS

1N3208-1N3214, 1N5332

STANDARD RECOVERY RECTIFIERS

## MAXIMUM RATINGS

Symbol	Parameter	Value
T <sub>STG</sub>	Storage temperature range	-65 to +200°C
T <sub>J</sub>	Operating junction temperature range	-65 to +200°C
R <sub>θJC</sub>	Maximum thermal resistance	1.25°C/W junction to case
R <sub>θJC</sub>	Typical thermal resistance	1.1°C/W junction to case
	Maximum mounting torque	25-30 inch pounds maximum
	Weight	0.5 ounces (14 grams) typical

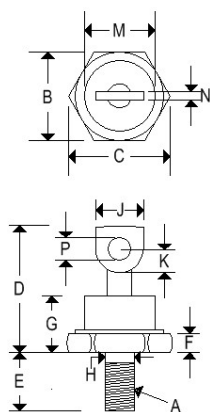
## ELECTRICAL CHARACTERISTICS

Symbol	Parameter	1N3208	1N3209	1N3210	1N3211	1N3212	1N3213	1N3214	1N5332	Test Conditions
V <sub>R</sub>	Peak reverse voltage	50V	100V	200V	300V	400V	500V	600V	1200V	
I <sub>F(AV)</sub>	Average forward current	40 A								T <sub>C</sub> = 146°C, halfsine wave, R <sub>θJC</sub> = 1.25°C/W
I <sub>FSM</sub>	Maximum surge current	800 A								8.3ms, half sine T <sub>J</sub> = 200°C
I <sup>2</sup> t	Maximum I <sup>2</sup> t for fusing	2600 A <sup>2</sup> s								
V <sub>FM</sub>	Maximum peak forward voltage	1.19 V								I <sub>FM</sub> = 90A; T <sub>J</sub> = 25°C*
I <sub>RM</sub>	Maximum peak reverse current	10 μA								V <sub>RRM</sub> , T <sub>J</sub> = 25°C
I <sub>RM</sub>	Maximum peak reverse current	2 mA								V <sub>RRM</sub> , T <sub>J</sub> = 150°C
	Maximum recommended operating frequency	10kHz								

\*Pulse test: Pulse width 300 μsec, duty cycle 2%

## MECHANICAL CHARACTERISTICS

Case	DO-5(R)
Marking	Alpha numeric
Normal polarity	Cathode is stud
Reverse polarity	Anode is stud (add "R" suffix)



	DO-5(R)			
	Inches		Millimeters	
	Min	Max	Min	Max
A	¼-28 UNF2A threads			
B	0.669	0.688	16.990	17.480
C	-	0.794	-	20.160
D	-	1.000	-	25.400
E	0.422	0.453	10.720	11.510
F	0.115	0.200	2.920	5.080
G	-	0.450	-	11.430
H	0.220	0.249	5.580	6.320
J	0.250	0.375	6.350	9.530
K	0.156	-	3.960	-
M	-	0.667	-	16.940
N	0.030	0.080	0.760	2.030
P	0.140	0.175	3.560	4.450

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Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).  
 Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.

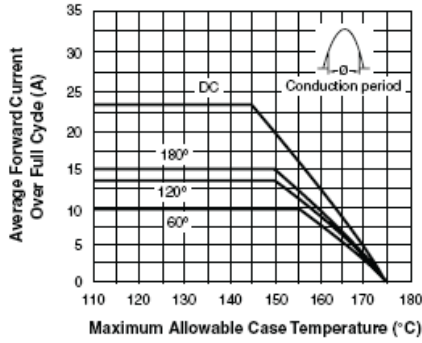


Fig. 1 - Average Forward Current vs. Maximum Allowable Case Temperature

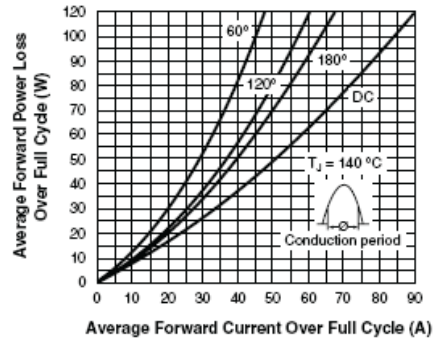


Fig. 3 - Maximum Low Level Forward Power Loss vs. Average Forward Current

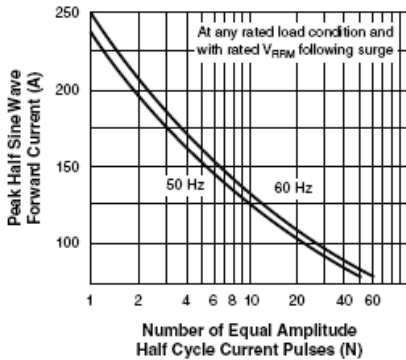


Fig. 2 - Maximum Non-Repetitive Surge Current vs. Number of Current Pulses

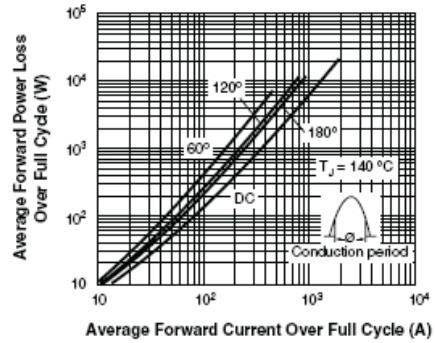


Fig. 4 - Maximum High Level Forward Power Loss vs. Average Forward Current

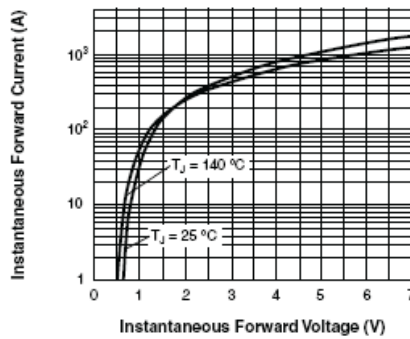


Fig. 5 - Maximum Forward Voltage vs. Forward Current