DIGITRON™ Semiconductors

High-reliability discrete products and engineering services since 1977

1N3208-1N3214, 1N5332

STANDARD RECOVERY RECTIFIERS

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS

Parameter	Symbol	Value
Storage temperature range	T_{STG}	-65 to +200°C
Operating junction temperature range	T_J	-65 to +200°C
Maximum thermal resistance	$R_{\theta JC}$	1.25°C/W junction to case
Typical thermal resistance	$R_{\theta JC}$	1.1°C/W junction to case
Maximum mounting torque		25-30 inch pounds maximum
Weight		0.5 ounces (14 grams) typical

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	1N3208	1N3209	1N3210	1N3211	1N3212	1N3213	1N3214	1N5332	Test Conditions
Peak reverse voltage	V_R	50V	100V	200V	300V	400V	500V	600V	1200V	
Average forward current	$I_{F(AV)}$	40 A								T_C = 146°C, halfsine wave, $R_{\theta JC}$ = 1.25°C/W
Maximum surge current	I_{FSM}	800 A								8.3ms, half sine T_J = 200°C
Maximum I^2t for fusing	I^2t	2600 A^2s								
Maximum peak forward voltage	V_{FM}	1.19 V								I_{FM} = 90A: T_J = 25°C*
Maximum peak reverse current	I_{RM}	10 µA								V_{RRM}, T_J = 25°C
Maximum peak reverse current	I_{RM}	2 mA								V_{RRM}, T_J = 150°C
Maximum recommended operating frequency		10kHz								

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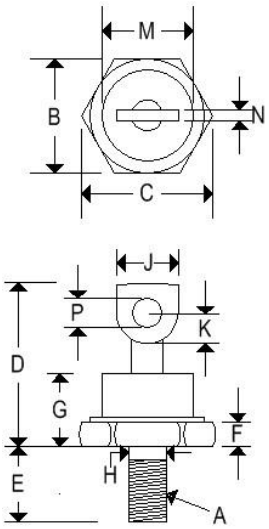
MECHANICAL CHARACTERISTICS

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	0115	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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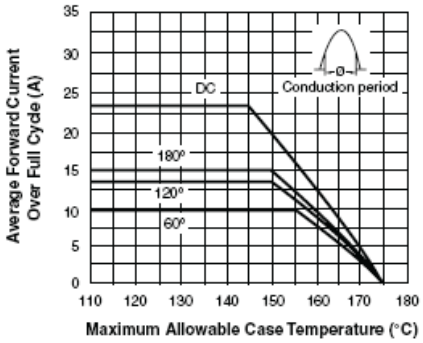

Fig. 1 - Average Forward Current vs. Maximum Allowable Case Temperature

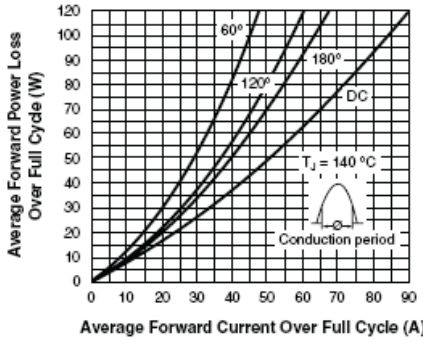

Fig. 3 - Maximum Low Level Forward Power Loss vs. Average Forward Current

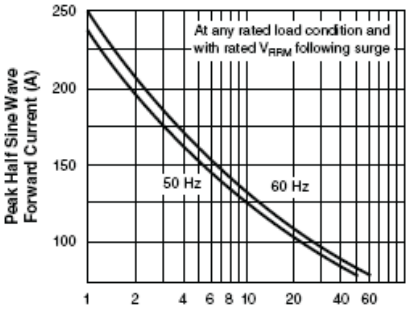

Fig. 2 - Maximum Non-Repetitive Surge Current vs. Number of Current Pulses

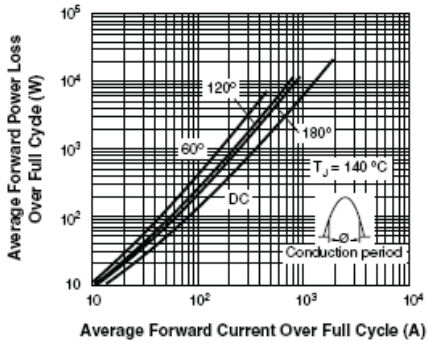

Fig. 4 - Maximum High Level Forward Power Loss vs. Average Forward Current

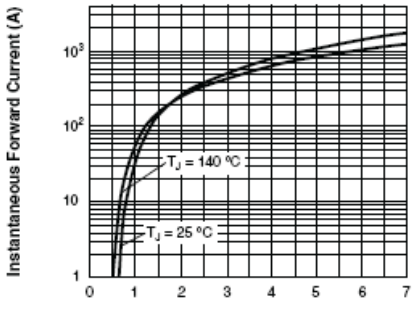

Fig. 5 - Maximum Forward Voltage vs. Forward Current