

1N3288(R)-1N3297(R)

HIGH POWER 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

Parameters			Symbol	Value	Unit
Peak Repetitive Reverse Voltage	1N3288	1N3288R	V_{RWM}	100	V
	1N3289	1N3289R		200	
	1N3291	1N3291R		400	
	1N3293	1N3293R		600	
	1N3294	1N3294R		800	
	1N3295	1N3295R		1000	
	1N3296	1N3296R		1200	
	1N3297	1N3297R		1400	
Average Forward Current, $T_C = 134^\circ$			I_F	100	A
Peak Surge Forward Current @ $t_p = 8.3\text{ms}$, half sinewave, $T_C = 150^\circ\text{C}$			I_{FSM}	1600	A
Thermal Resistance, Junction to Case			$R_{\theta JC}$	0.4	$^\circ\text{C}/\text{W}$
Operating Case Temperature Range			T_J	-65° to 200°	$^\circ\text{C}$
Storage Temperature Range			T_{stg}	-65° to 200°	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Characteristics			Symbol	Min	Max	Unit
Forward Voltage $I_{FM} = 310\text{A}$, $T_C = 25^\circ\text{C}$ ⁽¹⁾			V_{FM}	-	1.55	V
Reverse Current $V_{RM} = 100$, $T_C = 25^\circ\text{C}$ $V_{RM} = 200$, $T_C = 25^\circ\text{C}$ $V_{RM} = 400$, $T_C = 25^\circ\text{C}$ $V_{RM} = 600$, $T_C = 25^\circ\text{C}$ $V_{RM} = 800$, $T_C = 25^\circ\text{C}$ $V_{RM} = 1000$, $T_C = 25^\circ\text{C}$ $V_{RM} = 1200$, $T_C = 25^\circ\text{C}$ $V_{RM} = 1400$, $T_C = 25^\circ\text{C}$	1N3288	1N3288R	I_{RM}	-	10	mA
	1N3289	1N3289R				
	1N3291	1N3291R				
	1N3293	1N3293R				
	1N3294	1N3294R				
	1N3295	1N3295R				
	1N3296	1N3296R				
	1N3297	1N3297R				
Reverse Current $V_{RM} = 100$, $T_C = 200^\circ\text{C}$ $V_{RM} = 200$, $T_C = 200^\circ\text{C}$ $V_{RM} = 400$, $T_C = 200^\circ\text{C}$ $V_{RM} = 600$, $T_C = 200^\circ\text{C}$ $V_{RM} = 800$, $T_C = 200^\circ\text{C}$ $V_{RM} = 1000$, $T_C = 200^\circ\text{C}$ $V_{RM} = 1200$, $T_C = 200^\circ\text{C}$ $V_{RM} = 1400$, $T_C = 200^\circ\text{C}$	1N3288	1N3288R	I_{RM}	-	30	mA
	1N3289	1N3289R				
	1N3291	1N3291R				
	1N3293	1N3293R				
	1N3294	1N3294R				
	1N3295	1N3295R				
	1N3296	1N3296R				
	1N3297	1N3297R				

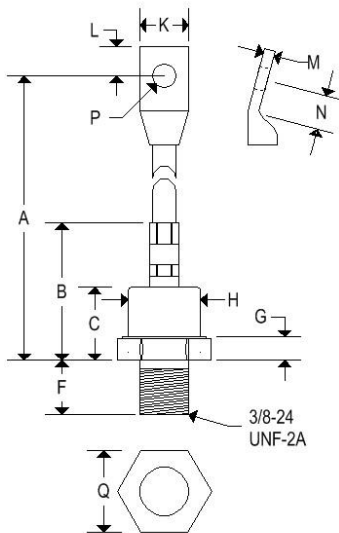
Note 1: Pulse Test: Pulse width 300 μsec . Duty cycle 2%.

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MECHANICAL CHARACTERISTICS

Case	DO-8(R)
Marking	Alpha numeric
Normal polarity	Cathode is stud
Reverse polarity	Anode is stud (add "R" suffix)



	DO-8(R)			
	Inches		Millimeters	
	Min	Max	Min	Max
A	3.875	4.625	98.430	117.470
B	-	1.675	-	42.540
C	0.875	0.960	22.230	24.380
F	0.605	0.645	15.370	16.380
G	0.125	0.500	3.180	12.700
H	-	1.063	-	27.000
K	0.437	0.650	11.100	16.510
L	0.297	-	7.550	-
M	0.050	0.160	1.270	4.060
N	0.300	-	7.620	-
P	0.250	0.310	6.350	7.870
Q	1.031	1.063	26.190	27.000

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FIGURE 1
TYPICAL FORWARD CHARACTERISTICS

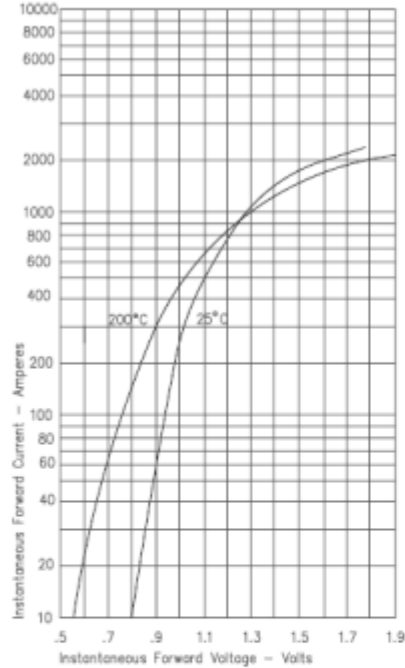


FIGURE 2
TYPICAL REVERSE CHARACTERISTICS

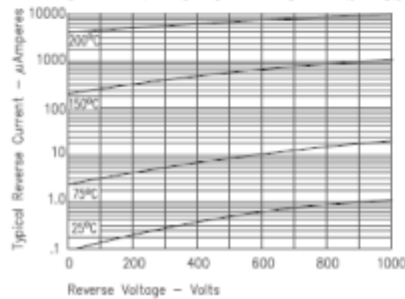


FIGURE 3
FORWARD CURRENT DERATING

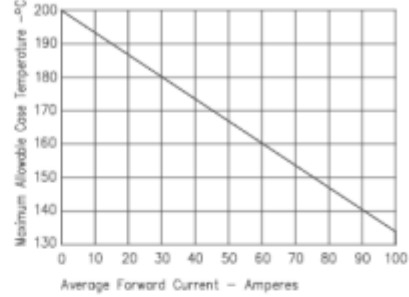


FIGURE 5
TRANSIENT THERMAL IMPEDANCE

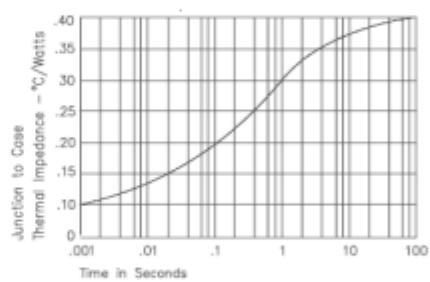


FIGURE 7
MAXIMUM NONREPETITIVE SURGE CURRENT

