

# 1N3670A-1N3673A

## STANDARD RECOVERY RECTIFIER

### 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.

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

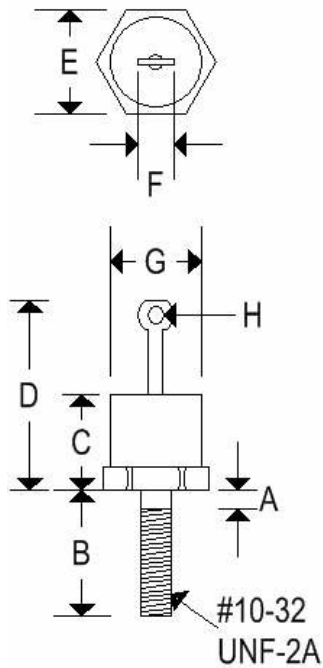
Characteristics	Symbol	1N3670	1N3671	1N3672	1N3673	Test Conditions	
Repetitive peak reverse voltage	$V_{RRM}$	700V	800V	900V	1000V		
Maximum RMS reverse voltage	$V_{RMS}$	490V	560V	630V	700V		
Non-repetitive peak reverse voltage	$V_{RSM}$	900V	1000V	1100V	1200V		
Average forward current	$I_{F(AV)}$	12A				180° sinusoidal conduction	
Maximum surge current	$I_{FSM}$	230A 240A				@50Hz @60Hz	Following any rated load condition and rated $V_{RRM}$ applied
		275A 285A				@50Hz @60Hz	Following any rated load condition and $V_{RRM}$ applied following surge = 0
Maximum $I^2t$ for fusing	$I^2t$	260A <sup>2</sup> s 240A <sup>2</sup> s				t = 10ms t = 8.3ms	With rated $V_{RRM}$ applied following surge, initial $T_J = 200^\circ\text{C}$
		370A <sup>2</sup> s 340A <sup>2</sup> s				t = 10ms t = 8.3ms	With $V_{RRM} = 0$ following surge, initial $T_J = 200^\circ\text{C}$
Maximum $I^2vt$ for individual device fusing	$I^2vt$	3715 A <sup>2</sup> vs				t = 0.1 to 10ms, $V_{RRM} = 0$ following surge	
Maximum peak forward voltage	$V_{FPM}$	1.35V				$I_{F(AV)} = 12A, T_C = 25^\circ\text{C}$	
Maximum average reverse current $V_{RRM} = 700V$ $V_{RRM} = 800V$ $V_{RRM} = 900V$ $V_{RRM} = 1000V$	$I_{R(AV)}$	0.9mA 0.8mA 0.7mA 0.6mA				Max. rated $I_{F(AV)}$ and $T_C$	
Storage temperature range	$T_{stg}$	-65° to 200°C					
Operating junction temperature range	$T_J$	-65° to 200°C					
Maximum thermal resistance	$R_{\theta JC}$	2.0C/W junction to case					

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## MECHANICAL CHARACTERISTICS

Case	DO-4(R)
Marking	Alpha-numeric
Normal polarity	Cathode is stud
Reverse polarity	Anode is stud (add "R" suffix)



	DO-4(R)			
	Inches		Millimeters	
	Min	Max	Min	Max
A	-	0.078	-	1.981
B	0.422	0.453	10.719	11.506
C	-	0.405	-	10.287
D	-	0.800	-	20.320
E	0.420	0.440	10.668	11.176
F	-	0.250	-	6.350
G	-	0.424	-	10.770
H	0.066	-	1.676	-

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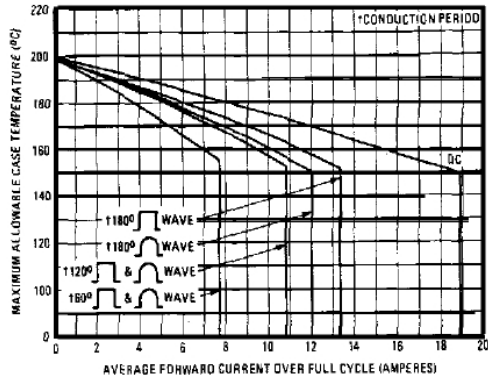


Fig. 1 - Average Forward Current Vs. Maximum Allowable Case Temperature

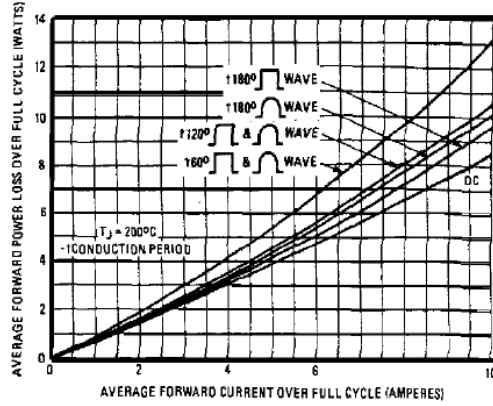


Fig. 2 - Maximum Low Level Forward Power Loss Vs. Average Forward Current

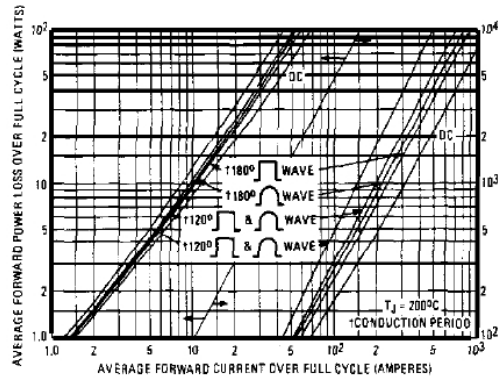


Fig. 3 - Maximum High Level Forward Power Loss Vs. Average Forward Current

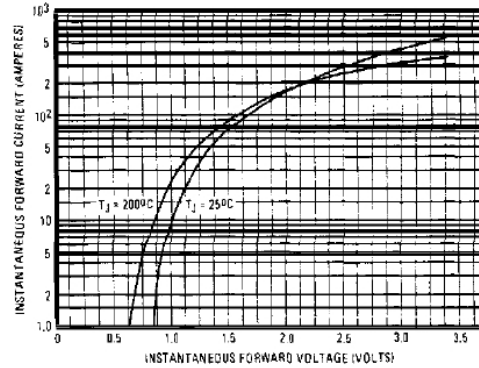


Fig. 4 - Maximum Forward Voltage Vs. Forward Current

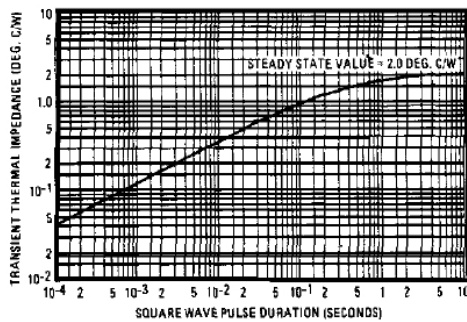


Fig. 5 - Maximum Transient Thermal Impedance, Junction-to-Case Vs. Pulse Duration

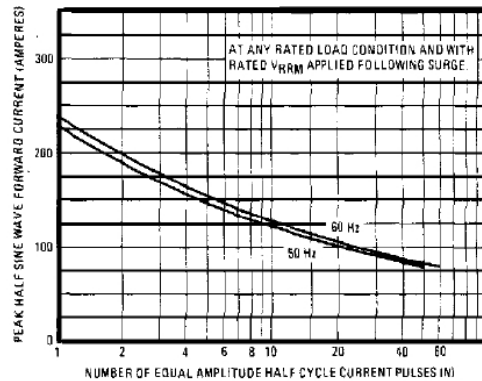


Fig. 6 - Maximum Non-Repetitive 50 Hz Surge Current Vs. Number of Current Pulses