

# 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)

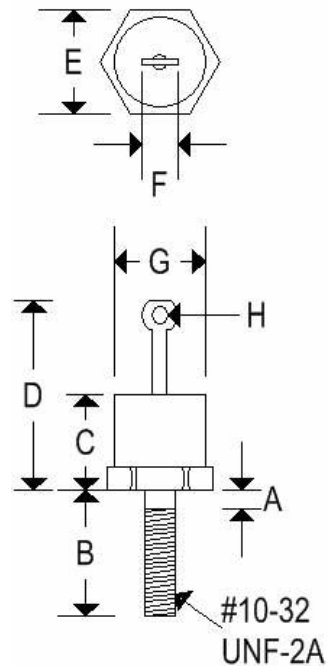
Characteristics	Symbol	1N3670	1N3671	1N3672	1N3673	Test Conditions	
Repetitive peak reverse voltage	V <sub>RRM</sub>	700V	800V	900V	1000V		
Maximum RMS reverse voltage	V <sub>RMS</sub>	490V	560V	630V	700V		
Non-repetitive peak reverse voltage	V <sub>RSM</sub>	900V	1000V	1100V	1200V		
Average forward current	I <sub>F(AV)</sub>	12A				180° sinusoidal conduction	
Maximum surge current	I <sub>FSM</sub>	230A 240A				@50Hz @60Hz	Following any rated load condition and rated V <sub>RRM</sub> applied
		275A 285A				@50Hz @60Hz	Following any rated load condition and V <sub>RRM</sub> applied following surge = 0
Maximum I <sup>2</sup> t for fusing	I <sup>2</sup> t	260A <sup>2</sup> s 240A <sup>2</sup> s				t = 10ms t = 8.3ms	With rated V <sub>RRM</sub> applied following surge, initial T <sub>J</sub> = 200°C
		370A <sup>2</sup> s 340A <sup>2</sup> s				t = 10ms t = 8.3ms	With V <sub>RRM</sub> = 0 following surge, initial T <sub>J</sub> = 200°C
Maximum I <sup>2</sup> Vt for individual device fusing	I <sup>2</sup> Vt	3715 A <sup>2</sup> Vs				t = 0.1 to 10ms, V <sub>RRM</sub> = 0 following surge	
Maximum peak forward voltage	V <sub>FM</sub>	1.35V				I <sub>F(AV)</sub> = 12A, T <sub>C</sub> = 25°C	
Maximum average reverse current V <sub>RRM</sub> = 700V V <sub>RRM</sub> = 800V V <sub>RRM</sub> = 900V V <sub>RRM</sub> = 1000V	I <sub>R(AV)</sub>	0.9mA 0.8mA 0.7mA 0.6mA				Max. rated I <sub>F(AV)</sub> and T <sub>C</sub>	
Storage temperature range	T <sub>stg</sub>	-65° to 200°C					
Operating junction temperature range	T <sub>J</sub>	-65° to 200°C					
Maximum thermal resistance	R <sub>ΘJC</sub>	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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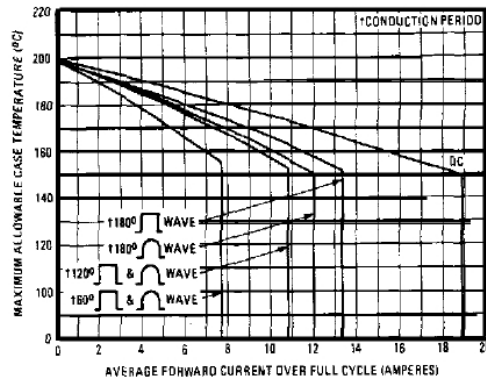


Fig. 1 - Average Forward Current Vs. Maximum Allowable Case Temperature

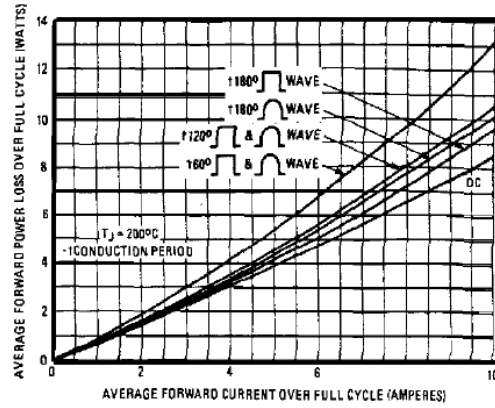


Fig. 2 - Maximum Low Level Forward Power Loss Vs. Average Forward Current

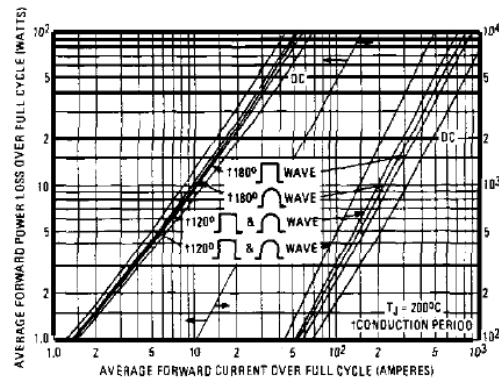


Fig. 3 - Maximum High Level Forward Power Loss Vs. Average Forward Current

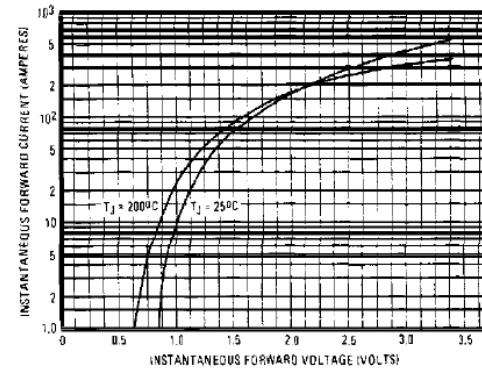


Fig. 4 - Maximum Forward Voltage Vs. Forward Current

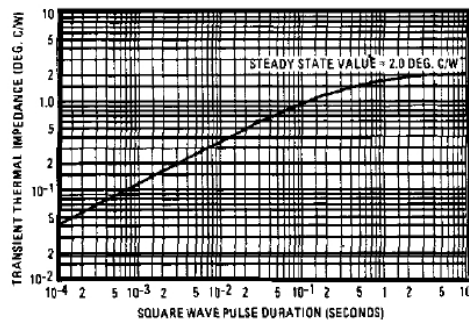


Fig. 5 - Maximum Transient Thermal Impedance, Junction-to-Case Vs. Pulse Duration

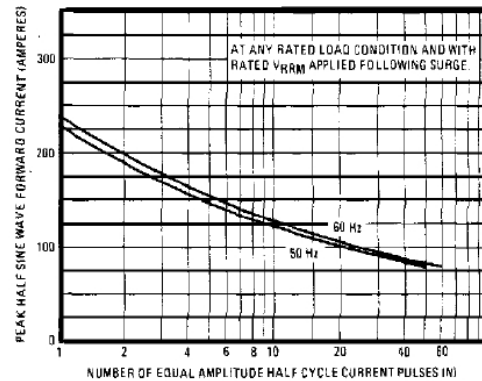


Fig. 6 - Maximum Non-Repetitive 50 Hz Surge Current Vs. Number of Current Pulses