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Subject: Re: rectifier controversy

Posted by [metasonix](#) on Sun, 08 Aug 2004 20:43:45 GMT

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Yes, it is contingent on design. The main disadvantage to cheap silicon rectifiers is their slow switch-off delay, which causes a big peak current to be drawn for a very short time. This can result in added "hash" noise in the circuit, esp. if the circuit grounding and wiring arrangement isn't optimal (as in, rigid star grounding, component layout etc). FREDs and tube rectifiers don't have so much of this problem, thus are less prone to putting "hash" into the circuit. Also, tube rectifiers have the slow warmup built-in, always a good thing to use to prevent possible cathode stripping in power tubes. A well-designed amp would optimize layout and DC supply filtering to use silicon rectifiers properly, so it's often a wash as to which is "superior" to the others. Now, if you're a hobbyist building your own tube amp, and you don't have lots of time to sit and build multiple revisions of the chassis and test each one for noise floor, a tube rectifier is handy. If you want a recommendation for a DIY amp, I'd say use damper diodes--they are extra-rugged and usually have very slow warmup.

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