Subject: IN 5408 Diodes
Posted by Manualblock on Sat, 19 Feb 2005 20:39:59 GMT
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3A 1K PIV. O'kay?

Subject: Re: IN 5408 Diodes
Posted by PakProtector on Sat, 19 Feb 2005 20:53:56 GMT
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For the filament supply?if so, yes they are fine. Not an absolute 'best', but rugged enough and quite functional.regards,Douglas

Subject: Re: IN 5408 Diodes
Posted by Manualblock on Sat, 19 Feb 2005 23:07:52 GMT
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The best; is that higher amp rating?

Subject: Re: IN 5408 Diodes
Posted by PakProtector on Sat, 19 Feb 2005 23:19:20 GMT
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I would put best in comparable amperage but of the Schottky type. Less recovery noise. That being said, I have used the 1N5408 with no discernable difference in the sonics.I used SB5100 which are 100 PIV/5A types I got from Mouser. I soldrered too close for too much time and overheated one. It failed short and when run w/o a fuse in-circuit, toasted my RS filament TX. New RS transformer and from my box a set of the 1N5408's. I found no difference. It's no big deal I think, but knowing I have Schottky diodes makes me feel better.regards,Douglas

Subject: Re: IN 5408 Diodes
Posted by Manualblock on Sun, 20 Feb 2005 12:53:04 GMT
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Thanks T; I just happen to have 4 of them from another amp that I took out and replaced with Schottkeys. I wonder; what exactly happens when they are wired in series and tied together?

Subject: diodes
Posted by PakProtector on Sun, 20 Feb 2005 13:04:27 GMT
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could you describe the circuit in a bit more detail?If you mean combine silicon P-N junction diodes with Schottkey barrier type, I am not sure. Certainly increased fwd voltage drop. I have a feeling that the lower PIV would have to be observed.I spoke with a product engineer from Cree about the SiC Schottkey types they had just introduced. He said that they could be paralleded for increased current but increasing the voltage by putting them in series wouldn't work like silicon P-N types do. regards,Douglas

Subject: Re: diodes
Posted by Manualblock on Sun, 20 Feb 2005 14:52:04 GMT
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No they were just two Diodes connected in series; soldered one end to one end. I clipped them off the circuit that way. There is two on one channel in series and two on the other. I guess it was originally a diode bridge.

Subject: Re: diodes
Posted by PakProtector on Sun, 20 Feb 2005 15:19:20 GMT
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I think the original app. required a PIV greater than 1kV. Silicon P-N junction diodes add their PIV when rigged in series.Picture this: increase inverse voltage across your 5408's in series. It builds until it reaches brekdown voltage on one. Current would flow and destroy one, but the second, running at less than breakdown PIV does not allow it to pass. One diode runs at breakdown PIV and the extra is taken across the next one.Since Schottkey types were nor recommended for this service, I think they must short out in over-voltage failure, and fail in a domino falling scenario. regards,Douglas

Subject: Re: diodes
Posted by Manualblock on Sun, 20 Feb 2005 15:41:13 GMT
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Ahhh. Now I get it. Sometimes it takes the three pound hammer but eventually I get it.

Subject: Bricks for me...
Posted by PakProtector on Sun, 20 Feb 2005 17:46:02 GMT
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to heck with the hammer...sometimes you can't find one. Bricks and/or rocks are far easier to hand.regards,Douglas