

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION  
The opinion in support of the decision being entered  
today (1) was not written for publication in a law  
journal and (2) is not binding precedent of the Board.

Paper No. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte EDWARD D. NOWAK

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Appeal No. 96-0348  
Application 08/145,268<sup>1</sup>

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ON BRIEF

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Before URYNOWICZ, SOFOCLEOUS and DOWNEY, Administrative Patent  
Judges.

DOWNEY, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the final  
rejection of claims 1, 3, 7 and 9, all the claims remaining in  
this application.

The subject matter on appeal is directed to a heat sink for  
semiconductor on insulator (SOI) circuits using a polysilicon  
conductive pillar. The conductive pillar, which is physically in

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<sup>1</sup> Application for patent filed October 29, 1993.

contact with the base of the bonded SOI wafer, is formed of doped polysilicon, which doping by out-diffusion serves to electrically insulate the conductive pillar from the base.

Appellant groups claims 1 and 3, and 7 and 9 and separately argues the two groups. (Brief, page 3). 37 CFR § 1.192(c)(7). Accordingly, we limit our consideration to claims 1 and 7, the only independent claims, in considering the rejection of the claims. Claims 1 and 7 read as follows:

1. In an integrated circuit, a heat sink comprising: a conductive pillar which extends from a top of a bonded semiconductor on insulator (SOI) wafer through an isolation region of the bonded SOI wafer and is in physical contact with a base of the bonded SOI wafer, the base of the bonded SOI wafer being located below the isolation region of the bonded SOI wafer, wherein the conductive pillar comprises doped polysilicon, doping for the polysilicon out-diffusing from the polysilicon into the base, thereby electrically insulating the conductive pillar from the base.

7. A heat sink formed on a bonded semiconductor on insulator (SOI) wafer, the heat sink comprising: conductive material in a trench, the trench extending from a top of the bonded SOI wafer through an isolation region of the bonded SOI wafer to a base of the bonded SOI wafer, the base of the bonded SOI wafer being located below the isolation region of the bonded SOI wafer wherein the conductive extends from the top of the bonded SOI wafer through the isolation region of the bonded SOI wafer and is in physical contact with but is electrically isolated from the base of the bonded SOI wafer, the conductive material comprising doped poly silicon, doping for the polysilicon out-diffusing from the polysilicon into the base, thereby electrically insulating the conductive material from the base.



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reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination or modification.

As is evident by the examiner's admission, Tashiro does not describe or suggest the doping of the polysilicon pillar. Rather the examiner has asked us, without the production of any evidence, to take notice of the existence and truth of the examiner's assertion that "it is well known in the art to dope polysilicon and that does not change or effect thermal conductivity" and thereafter to find that it would have been obvious to dope the conductive pillar of Tashiro. We decline to take such notice, where as here, the facts requested to be noticed are not of the type our reviewing court indicated to be proper for facts to be judicially noticed. See In re Boon, 439 F.2d 724, 727, 169 USPQ 231, 234 (CCPA 1971); citing In re Ahlert, 424 F.2d 1088, 1091, 165 USPQ 418, 420-21 (CCPA 1970).

The decision of the examiner is reversed.

REVERSED

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STANLEY M. URYNOWICZ, JR.	)
Administrative Patent Judge	)
	)
	) BOARD OF PATENT
MICHAEL SOFOCLEOUS	)
Administrative Patent Judge	) APPEALS AND
	)
	) INTERFERENCES
MARY F. DOWNEY	)
Administrative Patent Judge	)

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