

ABSTRACT

ELIMINATION OF VOID FORMATION IN ALUMINUM BASED INTERCONNECT STRUCTURES

A process for forming aluminum based interconnect structures, with a reduced risk of void formation, occurring during photoresist removal and clean up procedures, has been developed. The process features removing the photoresist layer, used as a mask for patterning of an aluminum based layer, using a two phase, in situ photoresist removal procedure, followed by a cold water rinse. An aluminum oxide layer, formed during the initial phase of the two phase, in situ photoresist removal procedure, protects the sides of the aluminum based interconnect structure, during post-clean procedures, reducing the risk of galvanic corrosion and void formation. In addition the temperature of a DI water, post-clean procedure, has also been decreased to between about 5 to 10°C, reduced, also reducing the risk of galvanic corrosion, that can occur during the post clean procedures.

FIGURE 1 IS SUGGESTED FOR PUBLICATION

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