

Title (en)

USE OF AN ADHESIVE COMPOSITION FOR DIE-ATTACHING HIGH POWER SEMICONDUCTORS

Title (de)

VERWENDUNG EINER KLEBEZUSAMMENSETZUNG ZUR CHIPANBRINGUNG VON HOCHLEISTUNGSHALBLEITERN

Title (fr)

UTILISATION D'UNE COMPOSITION ADHÉSIVE POUR LA FIXATION DE PUCES DE SEMI-CONDUCTEURS DE FORTE PUISSANCE

Publication

EP 2077065 A1 20090708 (EN)

Application

EP 07803139 A 20070831

Priority

- EP 2007059152 W 20070831
- EP 06020667 A 20060930
- EP 07803139 A 20070831

Abstract (en)

[origin: WO2008037559A1] The Directive 2002/95/EC of the European Parliament and of the Council promulgated that from 1st July 2006 new electrical and electronic equipment must no longer contain lead. Accordingly, lead-free solder alloys for various electrical and electronic applications have been developed. But at present, lead in high melting temperature type solders, e.g. used for die-attach applications, are exempted from the directive due to lack of lead-free alternatives for these alloys. The present invention provides a lead-free die-attach composition for attaching high power semiconductor devices to printed circuit boards. The die-attach composition comprises a metal filled epoxy resin, wherein the metal is selected from a powder comprising copper and having spheroidal particles with less than half of the copper atoms in a surface layer being oxidized as measured by XPS.

IPC 8 full level

H05K 7/20 (2006.01); **C09J 163/00** (2006.01); **H01L 23/482** (2006.01); **H05K 3/32** (2006.01)

CPC (source: EP)

H01L 24/29 (2013.01); **H01L 24/83** (2013.01); **H05K 7/20481** (2013.01); **H01L 2224/29** (2013.01); **H01L 2224/29101** (2013.01); **H01L 2224/29111** (2013.01); **H01L 2224/2919** (2013.01); **H01L 2224/29198** (2013.01); **H01L 2224/2929** (2013.01); **H01L 2224/29347** (2013.01); **H01L 2224/83855** (2013.01); **H01L 2924/01006** (2013.01); **H01L 2924/01015** (2013.01); **H01L 2924/01019** (2013.01); **H01L 2924/01029** (2013.01); **H01L 2924/01033** (2013.01); **H01L 2924/01047** (2013.01); **H01L 2924/0105** (2013.01); **H01L 2924/01057** (2013.01); **H01L 2924/01074** (2013.01); **H01L 2924/01082** (2013.01); **H01L 2924/0132** (2013.01); **H01L 2924/0133** (2013.01); **H01L 2924/014** (2013.01); **H01L 2924/0665** (2013.01); **H01L 2924/0781** (2013.01); **H01L 2924/10253** (2013.01); **H01L 2924/15747** (2013.01)

Citation (search report)

See references of WO 2008037559A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2008037559 A1 20080403; CN 101658083 A 20100224; CN 101658083 B 20130102; EP 1954114 A1 20080806; EP 2077065 A1 20090708; TW 200835430 A 20080816

DOCDB simple family (application)

EP 2007059152 W 20070831; CN 200780043947 A 20070831; EP 06020667 A 20060930; EP 07803139 A 20070831; TW 96130741 A 20070820