

Title (en)

BARREL PLATING OR HIGH-SPEED ROTARY PLATING USING A NEUTRAL TIN PLATING SOLUTION

Title (de)

TROMMELPLATTIERUNG ODER HOCHGESCHWINDIGKEITSREHPLATTIERUNG MIT EINER NEUTRALEN ZINNPLATTIERUNGSLÖSUNG

Title (fr)

PLACAGE AU TONNEAU OU PLACAGE ROTATIF À GRANDE VITESSE UTILISANT UNE SOLUTION DE PLACAGE D'ÉTAIN NEUTRE

Publication

**EP 3321396 B1 20210707 (EN)**

Application

**EP 17200630 A 20171108**

Priority

JP 2016220435 A 20161111

Abstract (en)

[origin: EP3321396A1] A barrel plating or high-speed rotary plating method for electronic components, and a neutral tin plating solution used therein. A plating solution that includes (A) stannous ions, (B) an acid or a salt, (C) a complexing agent, and (D) a diamine that has a polyoxyalkylene chain, and that has a pH in a range between 4 and 8 is used. The use of this neutral tin plating solution prevents the electronic components from coupling together during the barrel plating, enabling an improvement in manufacturability in barrel plating.

IPC 8 full level

**C25D 3/32** (2006.01); **C25D 17/16** (2006.01)

CPC (source: CN EP KR US)

**C25D 3/32** (2013.01 - CN EP KR US); **C25D 7/00** (2013.01 - CN EP KR US); **C25D 7/12** (2013.01 - CN); **C25D 17/16** (2013.01 - CN EP KR US); **C25D 17/20** (2013.01 - US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**EP 3321396 A1 20180516; EP 3321396 B1 20210707;** CN 108070885 A 20180525; CN 108070885 B 20200915; JP 2018076570 A 20180517; JP 6818520 B2 20210120; KR 102097996 B1 20200407; KR 20180053229 A 20180521; TW 201817921 A 20180516; TW I659130 B 20190511; US 2018135195 A1 20180517

DOCDB simple family (application)

**EP 17200630 A 20171108;** CN 201711057609 A 20171101; JP 2016220435 A 20161111; KR 20170145250 A 20171102; TW 106137168 A 20171027; US 201715730244 A 20171011