

Title (en)
METHOD FOR CURING SOLDER PASTE ON A THERMALLY FRAGILE SUBSTRATE

Title (de)
VERFAHREN ZUM AUSHÄRTEN EINER LÖTPASTE AUF EINEM THERMISCH ZERBRECHLICHEN SUBSTRAT

Title (fr)
PROCÉDÉ DE DURCISSEMENT DE PÂTE À SOUDER SUR UN SUBSTRAT THERMIQUEMENT FRAGILE

Publication
EP 3740340 A4 20211215 (EN)

Application
EP 18901662 A 20180119

Priority
US 2018014501 W 20180119

Abstract (en)
[origin: WO2019143358A1] A method for curing solder paste on a thermally fragile substrate is disclosed. An optically reflective layer and an optically absorptive layer are printed on a thermally fragile substrate. Multiple conductive traces are selectively deposited on the optically reflective layer and on the optically absorptive layer. Solder paste is then applied on selective locations that are corresponding to locations of the optically absorptive layer. After a component has been placed on the solder paste, the substrate is irradiated from one side with uniform pulsed light. The optically absorptive layer absorbs the pulsed light and becomes heated, and the heat is subsequently transferred to the solder paste and the component via thermal conduction in order to heat and melt the solder paste.

IPC 8 full level
B23K 1/005 (2006.01); **H01L 21/60** (2006.01); **H01L 23/14** (2006.01); **H01L 23/498** (2006.01); **H05K 3/32** (2006.01); **H05K 3/34** (2006.01)

CPC (source: EP KR)
B23K 1/0016 (2013.01 - EP KR); **B23K 1/005** (2013.01 - EP KR); **B23K 1/19** (2013.01 - EP KR); **B23K 35/025** (2013.01 - EP KR); **B23K 35/36** (2013.01 - EP KR); **H01L 23/145** (2013.01 - EP); **H01L 23/49816** (2013.01 - EP); **H01L 24/13** (2013.01 - EP); **H01L 24/81** (2013.01 - EP); **H05K 3/321** (2013.01 - EP); **H05K 3/3494** (2013.01 - EP KR); **B23K 35/262** (2013.01 - EP); **B23K 2101/42** (2018.07 - EP KR); **B23K 2103/40** (2018.07 - EP KR); **B23K 2103/42** (2018.07 - EP KR); **B23K 2103/54** (2018.07 - EP KR); **H01L 24/16** (2013.01 - EP); **H01L 2224/131** (2013.01 - EP); **H01L 2224/13111** (2013.01 - EP); **H01L 2224/1329** (2013.01 - EP); **H01L 2224/133** (2013.01 - EP); **H01L 2224/16227** (2013.01 - EP); **H01L 2224/7526** (2013.01 - EP); **H01L 2224/75262** (2013.01 - EP); **H01L 2224/75263** (2013.01 - EP); **H01L 2224/81192** (2013.01 - EP); **H01L 2224/8123** (2013.01 - EP); **H01L 2224/81234** (2013.01 - EP); **H01L 2224/81815** (2013.01 - EP); **H01L 2924/1579** (2013.01 - EP); **H01L 2924/351** (2013.01 - EP); **H01L 2924/3511** (2013.01 - EP); **H01L 2924/3512** (2013.01 - EP); **H05K 1/0274** (2013.01 - EP); **H05K 2201/0108** (2013.01 - EP KR); **H05K 2201/0112** (2013.01 - EP KR); **H05K 2201/2054** (2013.01 - EP KR)

Citation (search report)

- [Y] JP H05109824 A 19930430 - OMRON TATEISI ELECTRONICS CO
- [Y] EP 0758145 A2 19970212 - TAIYO YUDEN KK [JP]
- [Y] US 2011300676 A1 20111208 - SCHRODER KURT A [US], et al
- [Y] US 2015221602 A1 20150806 - ALIANE ABDELKADER [FR], et al
- [Y] VAN DEN ENDE D A ET AL: "Photonic Flash Soldering of Thin Chips and SMD Components on Foils for Flexible Electronics", IEEE TRANSACTIONS ON COMPONENTS, PACKAGING AND MANUFACTURING TECHNOLOGY, IEEE, USA, vol. 4, no. 11, 13 October 2014 (2014-10-13), pages 1879 - 1886, XP011563124, ISSN: 2156-3950, [retrieved on 20141031], DOI: 10.1109/TCPMT.2014.2360410
- See references of WO 2019143358A1

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