

Title (en)  
Resistor on a ceramic circuit board

Title (de)  
Widerstand auf einer keramischen Platte

Title (fr)  
Résistance sur circuit céramique

Publication  
**EP 0704864 A3 19961023 (EN)**

Application  
**EP 95115134 A 19950926**

Priority  

- JP 23336594 A 19940928
- JP 4972395 A 19950309

Abstract (en)  
[origin: EP0704864A2] A ceramic circuit board having an external resistor prepared by co-firing a low-bubbling resistor and a glass overcoat in which Ag is used in an amount of 0 to less than 1% by weight with a glass having a deformation temperature not higher than that of the glass of the overcoat in the low-bubbling resistor and a glass of CaO-Al<sub>2</sub>O<sub>3</sub>-SiO<sub>2</sub>-B<sub>2</sub>O<sub>3</sub> system is used in the overcoat. Also, in the low-bubbling resistor, Ag may be contained in an amount of at least 1% by weight in combination with a glass having such a deformation temperature that this deformation temperature minus 10 DEG C is not higher than that of the glass of the overcoat. Addition of Ag to the resistor can render the deformation temperature of the glass of the resistance paste substantially equal to or less than that of the glass of the overcoat, thereby enabling further reduction of the amount of bubbles remaining in the resistor after firing. The low-bubbling resistor not only enables accurate adjustment of the resistivity by laser trimming but also enables stable maintenance of the resistance value after the trimming.

IPC 1-7  
**H01C 17/02; H01C 17/065**

IPC 8 full level  
**H05K 3/28** (2006.01); **H01C 17/02** (2006.01); **H01C 17/065** (2006.01); **H05K 1/03** (2006.01); **H05K 1/18** (2006.01)

CPC (source: EP)  
**H01C 17/02** (2013.01); **H01C 17/065** (2013.01)

Citation (search report)  

- [A] DE 2345102 A1 19740321 - SECI
- [XY] DATABASE WPI Section Ch Week 8152, Derwent World Patents Index; Class L03, AN 81-95815d
- [YA] PATENT ABSTRACTS OF JAPAN vol. 013, no. 522 (E - 849) 21 November 1989 (1989-11-21)
- [A] PATENT ABSTRACTS OF JAPAN vol. 013, no. 359 (E - 804) 10 August 1989 (1989-08-10)
- [A] PATENT ABSTRACTS OF JAPAN vol. 014, no. 467 (E - 0989) 11 October 1990 (1990-10-11)

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Designated contracting state (EPC)  
DE FR GB

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JP 3093601 B2 20001003; JP H08153945 A 19960611

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