

Title (en)
MAGNETIC COMPONENT, SOFT MAGNETIC METAL POWDER USED IN SAME, AND METHOD FOR PRODUCING SAME

Title (de)
MAGNETISCHE KOMPONENTE, DARIN VERWENDETES WEICHMAGNETISCHES METALLPULVER UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)
COMPOSANT MAGNÉTIQUE, POUDRE DE MÉTAL MAGNÉTIQUE DOUX UTILISÉE DANS CELUI-CI, ET SON PROCÉDÉ DE PRODUCTION

Publication
EP 2801424 A1 20141112 (EN)

Application
EP 13848104 A 20130313

Priority
JP 2013001638 W 20130313

Abstract (en)
In a magnetic component, such as an inductor and an antenna, produced with a metal magnetic powder, a complex number component of magnetic permeability that is a loss in the GHz band was high. A magnetic component obtained by molding a soft magnetic metal powder can have a reduced loss factor in the GHz band. The soft magnetic metal powder is characterized by containing iron as a main ingredient, and having an average particle size of not larger than 300 nm, a coercive force (Hc) of 16 to 119 kA/m (200 to 1500 Oe), a saturation magnetization of not less than 90 Am²/kg, and a volume resistivity of not less than 1.0 × 10¹ Ω·cm. The volume resistivity is determined by measuring, by a four probe method, a molded body formed by vertically pressurizing 1.0 g of the metal powder at 64 MPa (20 kN).

IPC 8 full level
H01F 41/02 (2006.01); **B22F 1/16** (2022.01); **H01F 1/24** (2006.01); **H01F 1/33** (2006.01); **H01Q 17/00** (2006.01)

CPC (source: EP US)
B22F 1/16 (2022.01 - EP US); **H01F 1/33** (2013.01 - EP US); **H01Q 17/005** (2013.01 - EP); **B22F 2998/10** (2013.01 - EP); **B22F 2999/00** (2013.01 - EP); **C22C 2202/02** (2013.01 - EP); **H01F 1/24** (2013.01 - EP); **H01F 41/0246** (2013.01 - EP)

C-Set (source: EP US)
EP
1. **B22F 2999/00 + B22F 9/20 + B22F 2201/013**
2. **B22F 2999/00 + B22F 1/16 + B22F 2201/03 + B22F 2201/50 + B22F 2201/02**
3. **B22F 2998/10 + B22F 9/20 + B22F 1/16 + B22F 1/10**
US
1. **B22F 2999/00 + B22F 1/16 + B22F 2201/03 + B22F 2201/50 + B22F 2201/02**
2. **B22F 2998/10 + B22F 9/20 + B22F 1/16 + B22F 1/10**

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Designated extension state (EPC)
BA ME

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