

Title (en)

High-frequency core and inductance component using the same

Title (de)

Hochfrequenz-Magnetkern und Verwendung in einem Induktiven Bauelement

Title (fr)

Noyau magnétique à haute fréquence et composant inductif l'utilisant

Publication

**EP 1598836 A1 20051123 (EN)**

Application

**EP 05010020 A 20050509**

Priority

JP 2004146595 A 20040517

Abstract (en)

A high-frequency core (1) is a molded body obtained by molding a mixture of a soft magnetic metallic glass powder and a binder in an amount of 10% or less in mass ratio. The powder has an alloy composition represented by  $(\text{Fe}_{1-a}\text{Co}_a)_{100-x-y-z-q-r}(\text{M}_1\text{-pM}'_p)\text{xTyBzCqAlr}$  ( $0 < a < 0.50$ ,  $0 < p < 0.5$ ,  $2 \text{ atomic\%} < x < 5 \text{ atomic\%}$ ,  $8 \text{ atomic\%} < y < 12 \text{ atomic\%}$ ,  $12 \text{ atomic\%} < z < 17 \text{ atomic\%}$ ,  $0.1 \text{ atomic\%} < q < 1.0 \text{ atomic\%}$ ,  $0.2 \text{ atomic\%} < r < 2.0 \text{ atomic\%}$  and  $25 < (x+y+z+q+r) < 30$ , M being at least one selected from Zr, Nb, Ta, Hf, Mo, Ti, V, Cr, and W, M' being at least one selected from Zn, Sn, and R (R being at least one element selected from rare earth metals including Y), T being at least one selected from Si and P). An inductance component (101, 102) is formed by the core and a winding (3). <IMAGE>

IPC 1-7

**H01F 1/153**

IPC 8 full level

**H01F 1/153** (2006.01); **H01F 3/14** (2006.01); **H01F 17/06** (2006.01); **H01F 41/02** (2006.01)

CPC (source: EP US)

**H01F 1/15308** (2013.01 - EP US); **H01F 1/15375** (2013.01 - EP US); **H01F 1/15316** (2013.01 - EP US); **H01F 1/15325** (2013.01 - EP US); **H01F 3/14** (2013.01 - EP US); **H01F 17/062** (2013.01 - EP US); **H01F 41/0246** (2013.01 - EP US); **H01F 2017/048** (2013.01 - EP US)

Citation (search report)

- [XA] US 2003205295 A1 20031106 - YOSHIDA SHOJI [JP], et al
- [A] US 5252148 A 19931012 - SHIGETA MASAO [JP], et al
- [A] DE 3435519 A1 19850411 - TOSHIBA KAWASAKI KK [JP]

Cited by

EP2555210A4; DE102006032517A1; DE102006032517B4; US8216393B2

Designated contracting state (EPC)

DE GB

DOCDB simple family (publication)

**EP 1598836 A1 20051123**; **EP 1598836 B1 20081231**; CN 1700369 A 20051123; CN 1700369 B 20100512; DE 602005012020 D1 20090212; US 2005254989 A1 20051117

DOCDB simple family (application)

**EP 05010020 A 20050509**; CN 200510072633 A 20050516; DE 602005012020 T 20050509; US 12574705 A 20050509