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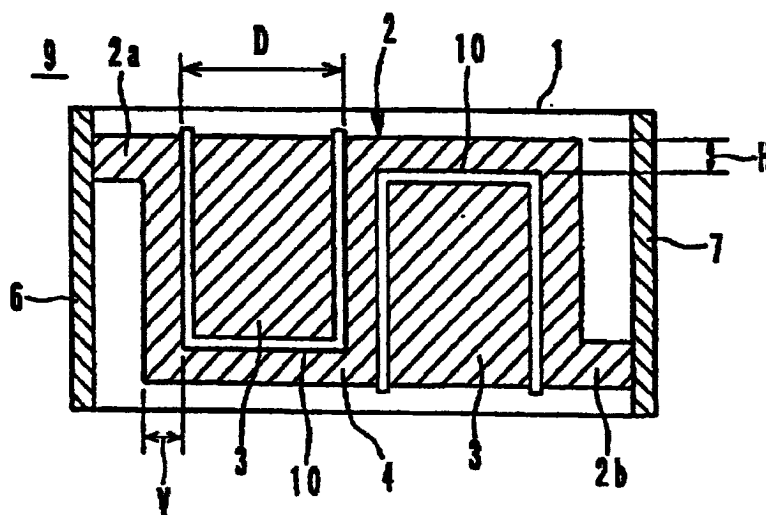
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(54) **Variable inductance element**

(57) A meandering inductor pattern (4) is formed on the upper surface of an insulating substrate (1). The inductor pattern (4) is formed by irradiating a conductor

pattern (2) with a laser beam to form U-shaped trimming grooves (10) in the conductor pattern (2) in such a manner that two island-shape rectangular sections (3) are separated from the conductor pattern.



**FIG.3**



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# EUROPEAN SEARCH REPORT

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EP 00 40 2278

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	PATENT ABSTRACTS OF JAPAN vol. 005, no. 070 (E-056), 12 May 1981 (1981-05-12) & JP 56 019613 A (MITSUBISHI ELECTRIC CORP), 24 February 1981 (1981-02-24) * abstract * -----	1	H01F41/04 H01F17/00 H01F21/00
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			H01F
The present search report has been drawn up for all claims			
Place of search	Date of completion of the search	Examiner	
THE HAGUE	12 January 2001	Marti Almeda, R	
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 56019613 A	24-02-1981	NONE	

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i For more details about this annex : see Official Journal of the European Patent Office, No. 12/82