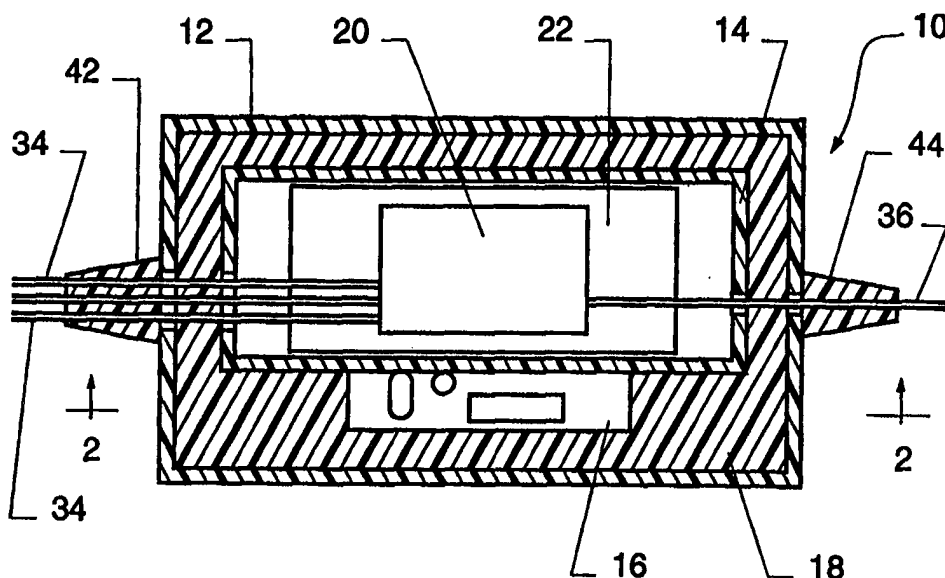




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(54) Title: PACKAGE FOR TEMPERATURE-SENSITIVE PLANAR OPTICAL COMPONENTS



(57) Abstract

A package for a temperature sensitive optical component (20) includes inner (14) and outer (12) containers of low thermal conductivity plastics material, a foam insulation (18) being situated between the two containers. Within the inner container (14) are a thermally conductive plate to which the component (20), a temperature sensitive resistor, and a resistive heating element are affixed. A temperature compensating circuit (16) is located outside the inner container. The temperature sensitive resistor is part of a Wheatstone bridge at the input of the circuit (16), whereby the circuit compensates for variations in operating voltage. The output transistor of the circuit regulates the current through the resistive heating element in response to variations in the resistance of the temperature sensitive resistor. This transistor extends into the inner container (14) and is in contact with the thermally conductive plate, whereby heat from the transistor is dissipated into the plate. This maintains the temperature of the transistor substantially constant.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US97/23168

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :Please See Extra Sheet.

US CL :Please See Extra Sheet.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 219/210, 209, 385, 520; 331/69; 359/512

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Derwent WPIDS, Japio

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 94/11763 A (JONES) 29 May 1994, Figs. 1 and 2	1-4
X	US 4,216,371 A (MAROTEL et al) 05 August 1980, Figs. 1-4.	1, 2, 6-8, 10-12
X	US 3,028,473 A (DYER et al) 03 April 1962, Figs. 1 and 3.	1-9
Y	JP 46-18422 A (COSMO DENKI KK) 22 May 1971, see the figure.	1
A	US 3,662,150 A (HARTUNG) 09 May 1972, see Figs. 1-3.	1-12
A	US 3,883,715 A (GEBO) 13 May 1975, Fig. 4.	1-12

 Further documents are listed in the continuation of Box C.
 See patent family annex.

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Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US97/23168

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3,962,559 A (DRDA et al) 08 June 1976, Figs. 1 and 2.	1-12
A	US 3,838,248 A (UCHIDA et al) 24 September 1974, Fig. 4.	1-12
A	US 3,237,173 A (CHAMBERLAIN et al) 22 February 1966, Fig. 1.	1-12

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A. CLASSIFICATION OF SUBJECT MATTER:

IPC (6):

H05B-3/00

A. CLASSIFICATION OF SUBJECT MATTER:

US CL :

219/210, 209, 385, 520; 331/69; 359/512