

Title (en)
PROTECTIVE CIRCUIT ARRANGEMENT, ESPECIALLY FOR ELECTRICAL DEVICES

Publication
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Application
EP 83105600 A 19830608

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Abstract (en)
[origin: EP0096834A2] A protection circuit arrangement has a fuse element (2) as short-circuit protection in the power, or primary circuit, and a temperature-dependent resistor (7) in a secondary circuit, the resistor (7) being electrically isolated from the fuse element (2) but being thermally coupled thereto. When the fuse element (2) warms up in the primary circuit under a current load, especially under an excessive current load, the temperature-dependent resistor (7) is likewise warmed up because of the thermal coupling, with a corresponding change of its resistance value proportional to the current load influencing the fuse element (2) in the primary circuit. On reaching specific instantaneous values of the resistor (7), which correspond to predetermined operating points, the secondary circuit switches the primary circuit off or exercises other protective functions. In this protective circuit arrangement, the fuse element (2) and the temperature-dependent resistor (7), which is thermally coupled thereto, are arranged as a separate electrical component, electrically isolated but jointly on a thermally conductive carrier (1) of dielectric material. <IMAGE>

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CPC (source: EP)
H01H 85/046 (2013.01); **H01H 85/463** (2013.01); **H01H 2085/0483** (2013.01)

Citation (search report)
• [Y] EP 0026571 A1 19810408 - RAYCHEM CORP [US]
• [Y] FR 2494900 A1 19820528 - WICKMANN WERKE AG [DE]
• [A] US 3843949 A 19741022 - PLOUGH C, et al
• [A] DE 2611819 A1 19770929 - SIEMENS AG
• [A] US 3614345 A 19711019 - QUINN FREDERIC R
• [A] PHILIPS RESEARCH REPORTS, Band 22, 1967, Seiten 170-177, Eindhoven, NL; K. VAN TEENSEL u.a.: "Thin-film switching elements of VO2"

Cited by
GB2205455A; DE19754415A1; FR2994892A1; CN114175204A; EP0263954A1; US5712610A; DE102014215279A1; EP0715328A1; EP0517306A3; US10134555B2; WO2014037242A1; WO9919895A1

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