

Offline Flyback Converter

Short Circuit Protection

Solution Products



MF-RHT070-0

Objective

The objective of this PortNote® Solution is the low-cost overload protection of offline power supplies, by using high temperature Bourns® Multifuse® PPTC Resettable Fuses. Transient overload testing on low-power offline converters can be stressful on the output diode and the transformer. The high turns ratio converts relatively low-peak currents in the primary side into peak currents of several amps on the secondary side, which can destroy the diode and overheat the transformer.

Solution

1 Multifuse® PPTC Resettable Fuse:
MF-RHT070-0

Compliance

EN 60335, IEC 60730 (low-power circuit test)

The PPTC resettable fuse protects the diode and the transformer during transient overloading by going high ohmic and then resets back to a low ohmic value once the overload is removed. High temperature Bourns® Multifuse® PPTC resettable fuses have temperature coefficients which are half the amount of standard Multifuse® PPTCs, giving them more consistent hold and trip characteristics.

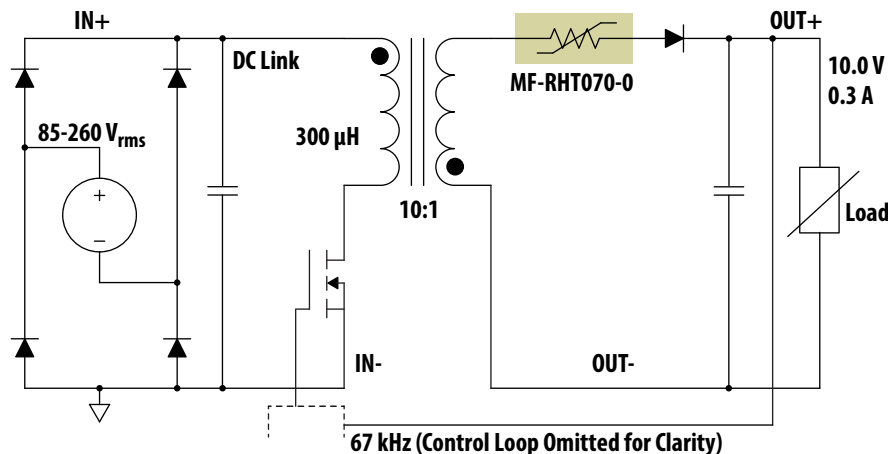
Benefit

The Bourns® Model MF-RHT070-0 resettable fuse reduces the need for larger, more expensive diodes. It also reduces the need for larger cores in the transformer.

Design Kit



PN-DESIGNKIT-55



The schematic above illustrates the application protection and does not constitute the complete circuit design. Customers should verify actual device performance in their specific applications.

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Bourns® PortNote® solutions provide protection recommendations for typical port threats.

For more information, go to:

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