

SEMICONDUCTOR NOISE PROTECTION CHOKE

PRODUCT SUMMARY

Description

NB / NK series are now available to reduce to reduce the spike noise in switch-mode power supplies such as persona / industrial, UPS, Telecomm / Network SMPS. This type of noise caused by rapid change in current and / or voltage.

In continuous mode converters, the output rectifiers have forward current flowing through them just prior to an instant voltage reversal across their terminals. This causes a sizeable spike of reverse current to flow through the diode. This spike usually flows through the power switch at its turn-on transition due to the reverse recovery of the output rectifier and / or catch diode. This added switch at its turn-on transition due to the reverse recovery of the output rectifier and / or catch diode. This added switching loss can be much more than the conduction loss of the power switching loss can be much more than the conduction loss of the power switch if the input voltage of the supply is high. One method to reduce this phenomenon is to add a NB / NK series Bead / Spike Killer cores in series with the output rectifier or the catch diode.

NB / NK series semiconductor noise suppression cores are a choke whose core exhibits a very square hysteresis curve, so called Z-shape B-H loop, as exhibited by Co-based amorphous alloy. Chokes made with this core material have very high permeability and quickly enter saturation, but do pass through a period of linear inductance behavior.

Feature

- Low loss which improve the efficiency of a switch-mode power supplies
- High inductance when the current crosses zero
- Very low saturated inductance
- Reduction of ripple noise and ringing
- Simplifies design of noise suppression circuit

Application

- Softening the reverse recovery phenomena in noise suppression
- Protection diode from being broken by spike voltage
- Ringing suppression in switch-mode power supplies
- Limit semiconductor rectifier revers recovery current in continuous mode converter
- Motor controller circuit used for MOSFET and / or bipolar transistor, BJT
- Ringing protection in MOSFET
- Time delay function for MOSFET gate trigger
- Bettery charger for switch-mode power supplies
- Spike noise protection for MOSFET bridge circuit
- Battery charger for switch-mode power supplies
- AC adapter for switch-mode power supplies