

Product Overview

NIS5021: Electronic fuse (eFuse), 12 V, 14 mΩ , 12 Amp

For complete documentation, see the data sheet.

The NIS5021 Series eFuse is a cost effective, resettable fuse which can greatly enhance the reliability of a hard drive or other circuit from both catastrophic and shutdown failures.

It is designed to buffer the load device from excessive input voltage which can damage sensitive circuits. It includes an overvoltage clamp circuit that limits the output voltage during transients but does not shut the unit down, thereby allowing the load circuit to continue its operation.

Features

- Low $R_{DS(on)}$
- Low quiescent current
- High continuous current driving capability
- Tri-state EN/FLT pin

Benefits

- Reduces of conduction loss and voltage drop for a given current
- Reduces overall bias current of the system
- Allows driving large loads including capacitive loads without SOA concerns
- Allows paralleling of eFuses as well as synchronizing turning on and off

Applications

- Auxiliary overcurrent protection and SATA power on backplane
- SATA Power Hot-Plug and Overcurrent Protection for HDD/SSD
- Power supply overcurrent protection
- Hot plug fans for servers
- Overcurrent protection for industrial power supplies, motor control

End Products

- Servers and motherboards
- Storage
- Power supply
- Hot plug fans
- Industrial applications

Part Electrical Specifications

| Product | Pricing (\$/Unit) | Compliance | Status | Type | V_I Max (V) | $r_{DS(on)}$ Max (mΩ) | T_{SD} Typ (°C) | T_{hyst} Typ (°C) | Package Type |
|---------------|-------------------|--|--------|------------|---------------|-----------------------|-------------------|---------------------|--------------|
| NIS5021MT1TXG | 0.8105 | Pb-free Halide free non AEC-Q and PPAP | Active | Latch Off | 18 | 14 | 175 | 45 | WDFN-10 |
| NIS5021MT2TXG | 0.8105 | Pb-free Halide free non AEC-Q and PPAP | Active | Auto-Retry | 18 | 14 | 175 | 45 | WDFN-10 |

For more information please contact your local sales support at www.onsemi.com.

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