

NIS3071

Electronic fuse (eFuse) 4-channel, 8V to 60V, 10A in 5x6mm package

Product Overview

For complete documentation, see the data sheet.

The NIS3071 is an 8V to 60V, 10A eFuse (2.5A per channel), incorporating 4 independent channels in a 5x6mm package. The device provides protection to critical downstream (inductive, capacitive and resistive) loads from output shorts, overloads and overcurrent events on each channel independently.

All outputs can be shorted together for a combined 10A load current under 48V or the NIS3071 can be configured to drive 4 independent loads (2.5A per channel), from 4 independent power supplies. This flexibility enables the NIS3071 to be well suited for industrial, servers, cloud, and telecom 12V, 24V, 36V, and 48V applications.

Each independent channel can be controlled by an activehigh enable pin, while the activelow fault pin communicates status to an external microcontroller. The device features an internal soft-start delay and trip time control, as well as adjustable current limit setting for all channels. A built-in thermal shutdown circuit with autoretry capability allows operation after the fault condition is cleared.

Features

- 4 independent channels
- Short-to-Ground Protection
- Thermal shutdown protection
- Slew rate control
- Fault
- Enable
- Undervoltage lockout
- Adjustable current limit
- Capacitive load charging

Applications

- Computer Numerical Control
- Telecom
- Server Hotplug
- Industrial transport
- 12V to 48V Industrial

End Products

- Computer Numerical Control
- 48V servers
- eBikes
- Radio power amplifiers
- Cloud and Computing

Part Electrical Specifications

Product	Status	Compliance	Type	V _I Max (V)	r _{DS(on)} Max (mΩ)	T _{SD} Typ (°C)	T _{Thyst} Typ (°C)	Package Type	Case Outline	MSL Type	MSL Temp (°C)	Container Type	Container Qty.
NIS3071MT4TWG	Active	 	Auto-Retry	60	80	175	27	WQFN-16	510CM.PDF	1	260	REEL	5000
NIS3071MT3TWG	Active	 	Latch	60	80	175	27	WQFN-16	510CM.PDF	1	260	REEL	5000