

NCV8415

Self-Protected Low Side Driver with In-Rush Current Management

Product Overview

For complete documentation, see the data sheet.

The NCV8412 is a three terminal protected LowSide Smart Discrete FET. The protection features include Delta Thermal Shutdown, overcurrent, overtemperature, ESD and integrated DrainToGate clamping for overvoltage protection. The device also offers fault indication via the gate pin. This device is suitable for harsh automotive environments.

Features

- Short Circuit Protection with In-Rush Current Management
- Thermal Shutdown with Automatic Restart
- Delta Thermal Shutdown
- Overvoltage Protection
- Integrated Clamp for Overvoltage Protection and Inductive Switching
- ESD Protection
- dV/dt Robustness
- Analog Drive Capability (Logic Level Input)
- NCV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AECQ101 Grade 1 Qualified and PPAP Capable
- These Devices are PbFree and are RoHS Compliant

For more features, see the data sheet

Applications

- Switch a Variety of Resistive, Inductive and Capacitive Loads
- Can Replace Electromechanical Relays and Discrete Circuits
- Automotive/Industrial

End Products

- Automotive

Part Electrical Specifications

| Product | Status | Compliance | Channel Polarity | $V_{(BR)DSS}$ Min (V) | I_D Typ (A) | $r_{DS(on)}$ Max (m Ω) | P_D Max (W) | Package Type | Case Outline | MSL Type | MSL Temp (°C) | Container Type | Container Qty. |
|---------------|--------|---|------------------|-----------------------|---------------|--------------------------------|---------------|-----------------------|--------------|----------|---------------|----------------|----------------|
| NCV8415STT3G | Active |  | N-Channel | 42 | 8.2 | 100 | 2.2 | SOT-223-4 / TO-261-4D | 0.0318 .PDF | 1 | 260 | REEL | 4000 |
| NCV8415DTRK G | Active |  | N-Channel | 42 | 8.2 | 100 | 2.99 | DPAK-3 | 369C. .PDF | 1 | 260 | REEL | 2500 |
| NCV8415STT1G | Active |  | N-Channel | 42 | 8.2 | 100 | 2.2 | SOT-223-4 / TO-261-4D | 0.0318 .PDF | 1 | 260 | REEL | 1000 |