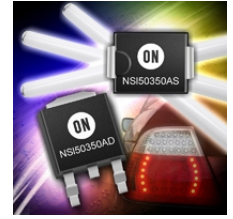


## Product Overview

### NSI50350AS: LED Driver, Constant Current Regulator, 350 mA, 50 V

For complete documentation, see the data sheet.



The linear constant current regulator (CCR) is a simple, economical and robust device designed to provide a cost-effective solution for regulating current in LEDs. The CCR is based on Self-Biased Transistor (SBT) technology and regulates current over a wide voltage range. It is designed with a negative temperature coefficient to protect LEDs from thermal runaway at extreme voltages and currents.

The CCR turns on immediately and is at 20% of regulation with only 0.5 V  $V_{AK}$ . It requires no external components allowing it to be designed as a high or low-side regulator. The high anode-cathode voltage rating withstands surges common in Automotive, Industrial and Commercial Signage applications. The CCR comes in thermally robust packages and is qualified to AEC-Q101 standard and UL94-V0 Certified.

Also available in DPAK: NSI50350ADT4G

### Features

- Robust Power Package: 5.8 W, Wide operating voltage range, Immediate turn on Voltage surge suppressing protecting LEDs, AEC-Q101 qualified and PPAP Capable, UL94-V0 Certified, SBT (Self Biased Transistor) Technology, Negative Temperature Coefficient, This device is PB-Free, Halogen Free/BFR Free and is RoHS Compliant
- AEC-Q101 Qualified and PPAP Capable, UL94-V0 Certified

### Applications

- LED Drive, Battery Charging.

### Benefits

- High or Low side control, Simple Battery Charge, Reduce LED binning and therefore inventory, NO EMI

### End Products

- Automotive - Cluster & Central Console Backlighting, Navigation/Audio Systems, Vanity Mirror Light, Car Door Puddle Light, Ambience Lighting, CHMSL, Turn Signals, Side Repeaters, Tail Lamps, Brake Lighting, Trailer lights. Display & Signage - Channel letters, Display backlighting, Neon bulb replacements, LED stripes & modules. Architectural lighting Decorative, Task, Exterior, Landscape & Under counter. Computing and Industrial Indicator lamps, Backlights

### Part Electrical Specifications

| Product       | Compliance  | Status | $V_I$ Max (V) | $I_O$ Max (mA) | LEDs in Series, Max # | LEDs in Parallel, Max # | Package Type |
|---------------|---|--------|---------------|----------------|-----------------------|-------------------------|--------------|
| NSI50350AST3G | Pb-free   | Active | 50            | 350            | 80                    | 16                      | SMC 2-Lead   |
|               | Halide free   |        |               |                |                       |                         |              |
| NSV50350AST3G | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | 50            | 350            | 80                    | 16                      | SMC 2-Lead   |

For more information please contact your local sales support at [www.onsemi.com](http://www.onsemi.com).

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