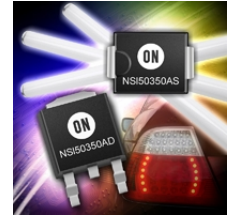


## Product Overview

### NSI50350AD: LED Driver, Constant Current Regulator, 50 V, 350 mA

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 SMC: NSI50350AST1G

### Features

- Robust Power Package: 11 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.
- AEC-Q101 Qualified and PPAP Capable, UL94-V0 Certified
- These Devices are Pb-Free, Halogen Free/BFR Free and are RoHS Compliant

### 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	Pricing (\$/Unit)	Compliance	Status	$V_I$ Max (V)	$I_O$ Max (mA)	LEDs in Series, Max #	LEDs in Parallel, Max #	Package Type
NSI50350ADT4G	0.308	Pb-free	Active	50	350	80	16	DPAK-3
		Halide free						
NSV50350ADT4G	0.3388	AEC Qualified PPAP Capable Pb-free Halide free	Active	50	350	80	16	DPAK-3

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

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