

Product Overview

NSI45030AZ: LED Driver, Constant Current Regulator, 30 mA, 45 V

For complete documentation, see the data sheet.

The linear constant current regulator is a simple, economical and robust device designed to provide a cost effective solution for regulating current in LEDs (similar to Constant Current Diode, CCD). The constant current regulator 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 constant current regulator turns on immediately and is at 25% 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 constant current regulator comes in thermally robust packages and is qualified to AEC-Q101 standard, and UL94-V0 certified.

Features

- Robust Power Package: 1.4 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 uses Halogen-Free Molding Compound, This is a Pb-Free Device
- AEC-Q101 Qualified and PPAP Capable, UL94-V0 Certified

Benefits

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

Applications

- LED Drive, Battery Charging, Contact Wetting
- 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 & Contact Wetting. 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
NSI45030AZT1G	0.132	Pb-free Halide free non AEC-Q and PPAP	Active	45	30	80	16	SOT-223-4 / TO-261-4D

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

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