

## Product Overview

### NUD4700: LED Shunt

For complete documentation, see the data sheet.

The NUD4700 is an electronic shunt which provides a current bypass in the case of a single LED going into open circuit. LEDs are by nature quite fragile when subjected to transients and surge conditions. There are also many cases where high reliability of the LED lighting must be maintained such as headlights, lighthouses, bridges, aircraft, runways and so forth. In these cases the low cost addition of the NUD4700 will provide full assurance that an entire string of LEDs will not extinguish should one LED fail. NUD4700 is also applicable to other loads where circuit continuity is required. This device is designed to be used with 1W LEDs (nominally 350mA @ 3V).

### Features

- A Simple Two Terminal Device
- Automatically Resets Itself if the LED Heals Itself or is Replaced
- ON-State Voltage Typically 1 V
- OFF-State Current less than 250  $\mu$ A
- This is a Pb-Free Device

### Applications

- LEDs where Preventive Maintenance is Non Practical
- LEDs with High Reliability Requirements
- Crowbar Protection for Open Circuit Conditions
- Overvoltage Protection for Sensitive Circuits

### End Products

- LED Headlights

### Part Electrical Specifications

| Product        | Pricing (\$/Unit) | Compliance  | Status | Channel Polarity | $V_{(BR)DSS}$ Min (V) | $I_D$ Typ (A) | $r_{DS(on)}$ Max (m $\Omega$ ) | $P_D$ Max (W) | Package Type |
|----------------|-------------------|---|--------|------------------|-----------------------|---------------|--------------------------------|---------------|--------------|
| NUD4700SNT1G   | 0.1687            | Pb-free<br>Halide free<br>non AEC-Q and PPAP            | Active | -                | 5.5                   | 0.0001        | -                              | 1.56          | POWERMITE-2  |
| SZNUD4700SNT1G |                   | AEC Qualified<br>PPAP Capable<br>Pb-free<br>Halide free | Active | -                | 5.5                   | 0.0001        | -                              | 1.56          | POWERMITE-2  |

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