



## Product Overview

### NSS40301MD: Low $V_{CE(sat)}$ Transistor, Dual NPN, 40 V, 6.0 A

For complete documentation, see the data sheet

#### Product Description

ON Semiconductor e2 PowerEdge family of Low  $V_{CE(sat)}$  Bipolar Transistors are miniature surface mount devices featuring ultra low saturation voltage  $V_{CE(sat)}$  and high current gain capability. These are designed for use in low voltage, high speed switching applications where affordable efficient energy control is important. Typical applications are DC-DC converters and power management in portable and battery powered products such as cellular and cordless phones, PDAs, computers, printers, digital cameras and MP3 players. Other applications are low voltage motor controls in mass storage products such as disc drives and tape drives. In the automotive industry they can be used in air bag deployment and in the instrument cluster. The high current gain allows e2PowerEdge devices to be driven directly from PMUs control outputs, and the Linear Gain (Beta) makes them ideal components in analog amplifiers.

#### Features

- Current Gain Matching to 10%
- Base Emitter Voltage Matched to 2 mV
- This is a Pb-Free Device
- NSV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AECQ101 Qualified and PPAP Capable

#### Applications

- Current Mirrors
- Differential Amplifiers
- DC-DC Converters
- Power management in portable and battery powered products

#### End Products

- Cellular and cordless phones
- PDAs

#### Part Electrical Specifications

Product	Compliance	Status	Polarity	$I_C$ Continuous (A)	$V_{BR/CEO}$ Min (V)	$V_{CE(sat)}$ Max (V)	$h_{FE}$ Min	$h_{FE}$ Max	$f_T$ Min (MHz)	$P_{TM}$ Max (W)	Package Type
NSS40301MDR2G	AEC Qualified Pb-free Halide free	Active	Dual NPN	3	40	0.06	200	-	100	0.576	SOIC-8
NSV40301MDR2G	AEC Qualified PPAP Capable Pb-free Halide free	Active	Dual NPN	3	40	0.06	200	-	100	0.576	SOIC-8

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