

Product Overview

NSB9435: PNP Bipolar Digital Transistor (BRT)

For complete documentation, see the data sheet.

This digital transistor is designed to replace a single device and its external resistor bias network. The bipolar digital transistor contains a single transistor with a monolithic bias network consisting of two resistors; a series base resistor and a base-emitter resistor. This eliminates these individual components by integrating them into a single device and can reduce both system cost and board space.

Features

- Collector-Emitter Sustaining Voltage - $V_{CEO(sus)} = 30 \text{ Vdc (Min) @ } I_C = 10 \text{ mAdc}$
- High DC Current Gain $-h_{FE} = 125 \text{ (Min) @ } I_C = 0.8 \text{ Adc}$
= 90 (Min) @ $I_C = 3.0 \text{ Adc}$
- Low Collector-Emitter Saturation Voltage - $V_{CE(sat)} = 0.275 \text{ Vdc (Max) @ } I_C = 1.2 \text{ Adc}$
= 0.55 Vdc (Max) @ $I_C = 3.0 \text{ Adc}$
- SOT-223 Surface Mount Packaging
- ESD Rating - Human Body Model: Class 1B
- Machine Model: Class B
- Pb-Free Package is Available
- NSV Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AECQ101 Qualified and PPAP Capable

Part Electrical Specifications

Product	Compliance	Status	Polarity	I_C Continuous (A)	V_{BRICEO} Min (V)	h_{FE} Min	R1 (k Ω)	R2 (k Ω)	R1/R2 Typ	$V_{i(ef)}$ Max (V)	$V_{i(en)}$ Min (V)	Package Type
NSB9435T1G	Pb-free	Active	PNP	3	30	125	-	10	-	-	-	SOT-223-4 / TO-261-4D
	Halide free											
NSV9435T1G	AEC Qualified PPAP Capable Pb-free Halide free	Active	PNP	3	30	125	-	10	-	-	-	

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