

# **Product Overview**

# NSVF4020SG4: RF Transistor for Low Noise Amplifier

For complete documentation, see the data sheet.

This RF transistor is designed for low noise amplifier applications. MCPH package is suitable for use under high temperature environment because it has superior heat radiation characteristics. This RF transistor is AEC-Q101 qualified and PPAP capable for automotive applications.

#### **Features**

- Low-noise use: NF = 1.2 dB (typ) [f = 1 GHz]
- High cut-off frequency : fT = 16 GHz (typ) [VCE = 5 V]
- High gain :  $|S21e|^2 = 17.5 \, dB \, (typ) \, [f = 1 \, GHz]$
- · AEC-Q101 qualified and PPAP capable
- · Pb-Free, Halogen Free and RoHS compliance
- · MCPH4 package is pin-compatible with SC-82FL

## **Applications**

· Low Noise Amplifier

## **Benefits**

- · Realize the clear signal amplification
- · Aveirable for high frequency application
- · Useful for the reception of the small signal
- · Suitable for automotive applications
- · Environmental consideration

## **End Products**

- · Satellite Radios
- · ITS with 700 MHz
- · FM Radio Antenna
- · Remote Keyless Entry System

Part Electrical Specifications											
Compliance	Status	Polarity	I <sub>C</sub> Continuo us (A)	V <sub>CEO(sus)</sub> Min (V)	h <sub>FE</sub> Min	h <sub>FE</sub> Max	P <sub>TM</sub> Max (W)	f <sub>⊤</sub> Min (MHz)	NF Typ. (dB)	S21e  2 Typ. (dB)	Package Type
AEC Qualified	Active	NPN	0.15	8	60	150	0.4	13000	1.2	17.5	SC 82FL / MCPH4
PPAP Capable Pb-free											
	AEC Qualified PPAP Capable	AEC Qualified PPAP Capable Pb-free Status	Compliance Status Polarity  AEC Qualified PPAP Capable Pb-free	Compliance Status Polarity I Continuo us (A)  AEC Qualified PPAP Capable Pb-free	Compliance Status Polarity I <sub>C</sub> Continuo us (A) Min (V)  AEC Qualified PPAP Capable Pb-free	Compliance         Status         Polarity         I <sub>C</sub> Continuo us (A)         V <sub>CEO(sus)</sub> Min (V)         h <sub>FE</sub> Min           AEC Qualified         PPAP Capable         NPN         0.15         8         60           Pb-free         Pb-free         Pb-free         Polarity         I <sub>C</sub> Continuo Min (V)         NFN         NFN         0.15         8         60	Compliance         Status         Polarity         I <sub>C</sub> Continuo us (A)         V <sub>CEO(sus)</sub> Min (V)         h <sub>FE</sub> Min         h <sub>FE</sub> Max           AEC Qualified         PPAP Capable         Pb-free         0.15         8         60         150	Compliance         Status         Polarity         I <sub>C</sub> Continuo us (A)         V <sub>CEO(sus)</sub> Min (V)         h <sub>FE</sub> Min         h <sub>FE</sub> Max         P <sub>TM</sub> Max (W)           AEC Qualified         PPAP Capable         PD-free         8         60         150         0.4	Compliance         Status         Polarity         I <sub>C</sub> Continuo us (A)         V <sub>CEO(sus)</sub> Min (V)         h <sub>FE</sub> Min         h <sub>FE</sub> Max (W)         P <sub>TM</sub> Max (W)         f <sub>T</sub> Min (MHz)           AEC Qualified         PPAP Capable         PD-free         8         60         150         0.4         13000	Compliance Status Polarity I <sub>C</sub> Continuo us (A) Min (V) h <sub>FE</sub> Min h <sub>FE</sub> Max P <sub>TM</sub> Max (W) Min (W) Min (V) h <sub>FE</sub> Min (MHz) NF Typ. (dB)  AEC Qualified PPAP Capable Pb-free	Compliance Status Polarity $I_{C}$ $V_{CEO(sus)}$ $V_{CEO(sus)}$ $V_{FE}$ Min $V_{CEO(sus)}$ $V$

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

Created on: 3/1/2018