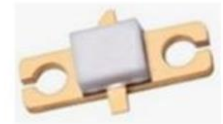


25W, 28V RF Power GaN HEMT

NGN60025L5F



Description

The NGN60025L5F is an unmatched 25W transistor. It is a compact and versatile product that can be used up to 6GHz in a multitude of applications with different signal formats such as CW, pulsed radar, or complex modulation schemes etc.

Applications and Features

- 5G, LTE and multi-mode wireless communication,
- Wideband amplifiers
- Radar
- EMC testing, ISM

Maximum Ratings

Rating	Symbol	Value	Unit
Drain-Source Voltage	V_{DSS}	120	Vdc
Gate-Source Voltage	V_{GS}	-10,+2	Vdc
Operating Voltage	V_{DD}	40	Vdc
Maximum Forward Gate Current @ $T_C = 25^\circ\text{C}$	I_{gmax}	6	mA
Storage Temperature Range	T_{stg}	-65 to +150	$^\circ\text{C}$
Case Operating Temperature	T_C	+150	$^\circ\text{C}$
Operating Junction Temperature	T_J	+225	$^\circ\text{C}$
Total Device Power Dissipation	P_{diss}	43	W
Thermal Resistance, $T_C=85^\circ\text{C}$, $T_J=200^\circ\text{C}$,	$R_{\theta JC}$	4.6	$^\circ\text{C/W}$

Electrical Characteristics

DC Characteristics

Characteristic	Conditions	Symbol	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{GS}=-8\text{V}$; $I_{DS}=10\text{mA}$	V_{DSS}		160		V
Gate Threshold Voltage	$V_{DS} = 28\text{V}$, $I_D = 5\text{mA}$	$V_{GS(th)}$		-2.7		V
Gate Quiescent Voltage	$V_{DS} = 28\text{V}$, $I_{DS}=150\text{mA}$,	$V_{GS(Q)}$		-2.35		V

RF Characteristics

As measured in standard test fixture $V_{DD}=28\text{V}$, $I_{DQ} = 150\text{mA}$, $f = 2\text{GHz}$, $P_{in}=25\text{dBm}$

Characteristic	Symbol	Min	Typ	Max	Unit
Power Gain	G_p		19		dB
Drain Efficiency @ P_{SAT}	η		70		%
Output Power	P_{SAT}		25		W
Maximum mismatch all phase angles	VSWR		10:1		Ψ

Package Outline

