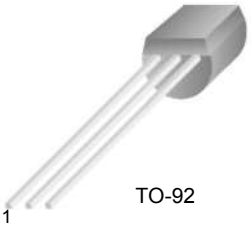
FAIRCHILD SEMICONDUCTOR®

May 2008

2N5555
N-Channel RF Amplifier

- This device is designed primarily for electronic switching applications such as low on resistance analog switching.
- Sourced from process 50.



TO-92

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1. Gate 2. Source 3. Drain

Absolute Maximum Ratings* T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{DG}	Drain-Gate Voltage	25	V
V_{GS}	Gate-Source Voltage	-25	V
I_{GF}	Forward Gate Current	10	mA
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 ~ 150	°C

* This ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:
1) These rating are based on a maximum junction temperature of 150 degrees C.
2) These are steady limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25°C	350 2.8	mW mW/°C
$R_{\theta JC}$	Thermal Resistance, Junction to Case	125	°C/W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	°C/W

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Electrical Characteristics* T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
Off Characteristics					
$V_{(BR)GSS}$	Gate-Source Breakdown Voltage	I_G = 10μA, V_{DS} = 0	-25		V
I_{GSS}	Gate Reverse Current	V_{GS} = 15V, V_{DS} = 0, T = 25°C		-1.0	nA
$V_{GS(off)}$	Gate-Source Cut-off Voltage	V_{DS} = 12V, I_D = 10nA	-2.5	9.5	V
$V_{GS(f)}$	Gate-Source Forward Voltage	I_G = 1.0mA		1	V
On Characteristics					
*I_{DSS}	Zero-Gate Voltage Drain Current *	V_{DS} = 15V, V_{GS} = 0	15		mA
R_{DS}(on)	Drain-Source On Resistance	I_D = 666μA, f = 1.0kHz		150	Ω
Small Signal Characteristics					
C_{iss}	Input Capacitance	V_{DS} = 15V, V_{GS} = 0V, f = 1.0MHz		5	pF
C_{rss}	Reverse Transfer Capacitance	V_{DS} = 0V, V_{GS} = 10V, f = 1.0MHz		1.2	pF

* Pulse Test: Pulse Width ≤ 300μs, Duty Cycle = 2%

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FPS™	®	SuperSOT™-3	UniFET™
FRFET®	PDP-SPM™	SuperSOT™-6	VCX™
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