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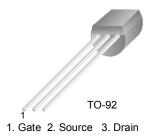
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May 2008

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.



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

Symbol	Parameter	Value	Units
V _{DG}	Drain-Gate Voltage		V
V _{GS}	Gate-Source Voltage	-25	V
I _{GF} Forward Gate Current 10		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.

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
$R_{\theta JC}$	C Thermal Resistance, Junction to Case		°C/W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	°C/W

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.

Symbol	Parameter	Test Condition	Min.	Max.	Units		
Off Charac	Off Characteristics						
V _{(BR)GSS}	Gate-Source Breakdown Voltage	$I_{G} = 10\mu A, V_{DS} = 0$	-25		٧		
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	٧		
$V_{GS(f)}$	Gate-Source Forward Voltage	I _G = 1.0mA		1	٧		
On Characteristics							
*I _{DSS}	Zero-Gate Voltage Drain Current *	V _{DS} = 15V, V _{GS} = 0	15		mA		

*I _{DSS}	Zero-Gate Voltage Drain Current *	V _{DS} = 15V, V _{GS} = 0	15		mA
RDS(on)	Drain-Source On Resistance	I _D = 666μA, f = 1.0kHz		150	Ω

Small Signal Characteristics

Ciss	Input Capacitance	$V_{DS} = 15V, V_{GS} = 0V, f = 1.0MHz$	5	pF	
Crss	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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