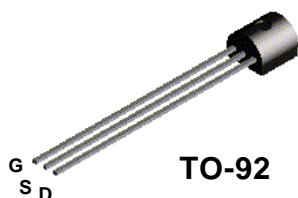


MPF102



N-Channel RF Amplifier

This device is designed for electronic switching
Applications such as low ON resistance analog switching.
Sourced from Process 50.

Absolute Maximum Ratings * TA=25 degree 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 to + 155	degree 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 state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics TA = 25 degrees C unless otherwise noted.

Symbol	Characteristic	Max	Units
P _D	Total Device Dissipation	350	mW
	Derate above 25 degrees C	2.8	mW/degrees C
R _{θJC}	Thermal Resistance, Junction to Case	125	degrees C/W
R _{θJA}	Thermal Resistance, Junction to Ambient	357	degrees C/W

* Device mounted on FR-4 PCB 1.5" X 1.6" X 0.06"

N-Channel RF Amplifier

(Continued)

Electrical Characteristics TA= 25 degrees C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
OFF CHARACTERISTICS						
$V_{(BR)GSS}$	Gate-Source Breakdown Voltage	$I_G=-1.0\mu A, V_{DS}=0$	-25			V
I_{GSS}	Gate Reverse Current	$V_{GS}=-15V, V_{DS}=0$			-2.0	nA
$V_{GS(off)}$	Gate-Source Cutoff Voltage	$V_{DS}=15V, I_D=2nA$			-8.0	V
V_{GS}	Gate-Source Voltage	$V_{DS}=15V, I_D=200\mu A$	-0.5		-7.5	V
ON CHARACTERISTICS						
I_{DSS}	Zero-Gate Voltage Drain Current	$V_{DS}=15V, V_{GS}=0$	2.0		20	mA
g_{fs}	Forward Transconductance	$V_{GS}=0V, V_{DS}=15V, f=1kHz.$	2000		7500	μS
Capacitance						
C_{iss}	Common-Source Input Capacitance	$V_{GS}=15V, V_{DS}=0V$ $f=1 MHz.$			7.0	pf
C_{rss}	Common-Source reverse Transfer Capacitance	$V_{GS}=15V, V_{DS}=0V$ $f=1 MHz.$			3.0	pf

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PRODUCT STATUS DEFINITIONS

Definition of Terms

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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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