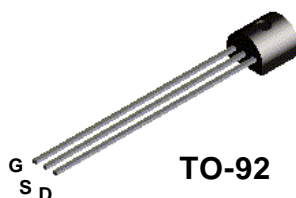


MPF102



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 Derate above 25 degrees C	350 2.8	mW 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 =-1.0μA, 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 =200μA	-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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