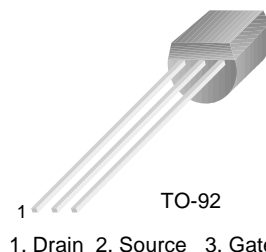


MPF102

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 * $T_a=25^\circ\text{C}$ 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 ~ +155	$^\circ\text{C}$

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

NOTES:

- 1) These ratings 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

Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

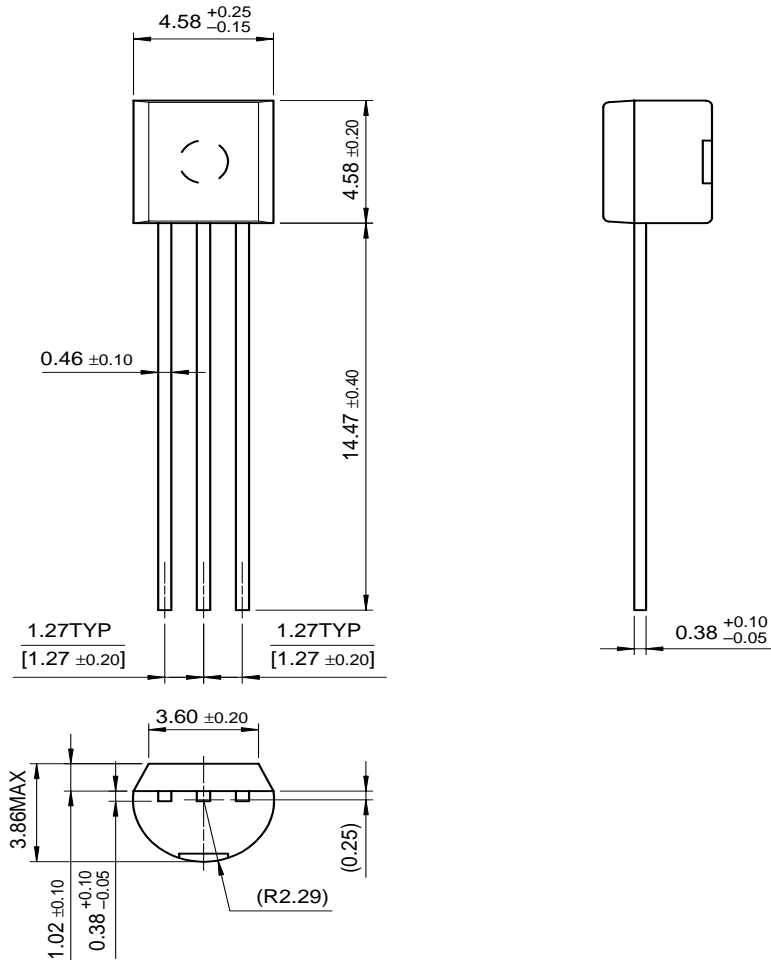
Symbol	Parameter	Test Condition	Min.	Max.	Units
Off Characteristics					
$V_{(BR)GSS}$	Gate-Source Breakdown Voltage	$I_G = -1.0\mu\text{A}, V_{DS} = 0$	-25		V
I_{GSS}	Gate Reverse Current	$V_{GS} = -15\text{V}, V_{DS} = 0$		-2.0	nA
$V_{gs(off)}$	Gate-Source Cutoff Voltage	$V_{DS} = 15\text{V}, I_D =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

Thermal Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

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

Package Dimensions

TO-92



Dimensions in Millimeters

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Definition of Terms

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