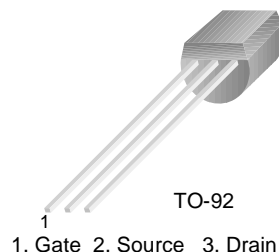


2N5246

2N5246

N-Channel RF Amplifier

- This device is designed for HF/VHF mixer/amplifier and applications where process 50 is not adequate. Sufficient gain and low noise for sensitive receivers.
- Sourced from process 90.



Absolute Maximum Ratings* $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{DG}	Drain-Gate Voltage	30	V
V_{GS}	Gate-Source Voltage	-30	V
I_{GF}	Forward Gate Current	10	mA
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 ~ 150	$^\circ\text{C}$

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

NOTES:

- These rating are based on a maximum junction temperature of 150 degrees C.
- These are steady 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 Breakdwn Voltage	$I_G = 1.0\mu\text{A}, V_{DS} = 0$	-30		V
I_{GSS}	Gate Reverse Current	$V_{GS} = 25\text{V}, V_{DS} = 0$		-1.0	nA
$V_{GS(off)}$	Gate-Source Cutoff Voltage	$V_{DS} = 15\text{V}, I_D = 1.0\text{nA}$	-0.5	-4.0	V
On Characteristics					
I_{DSS}	Zero-Gate Voltage Drain Current *	$V_{DS} = 15\text{V}, V_{GS} = 0$	1.5	7.0	mA
Small Signal Characteristics					
g_{fs}	Forward Transferconductance	$V_{GS} = 0\text{V}, V_{DS} = 15\text{V}, f = 1.0\text{kHz}$	3000	9500	μmhos
g_{oss}	Common- Source Output Conductance	$V_{GS} = 0\text{V}, V_{DS} = 15\text{V}, f = 1.0\text{kHz}$		50	μmhos

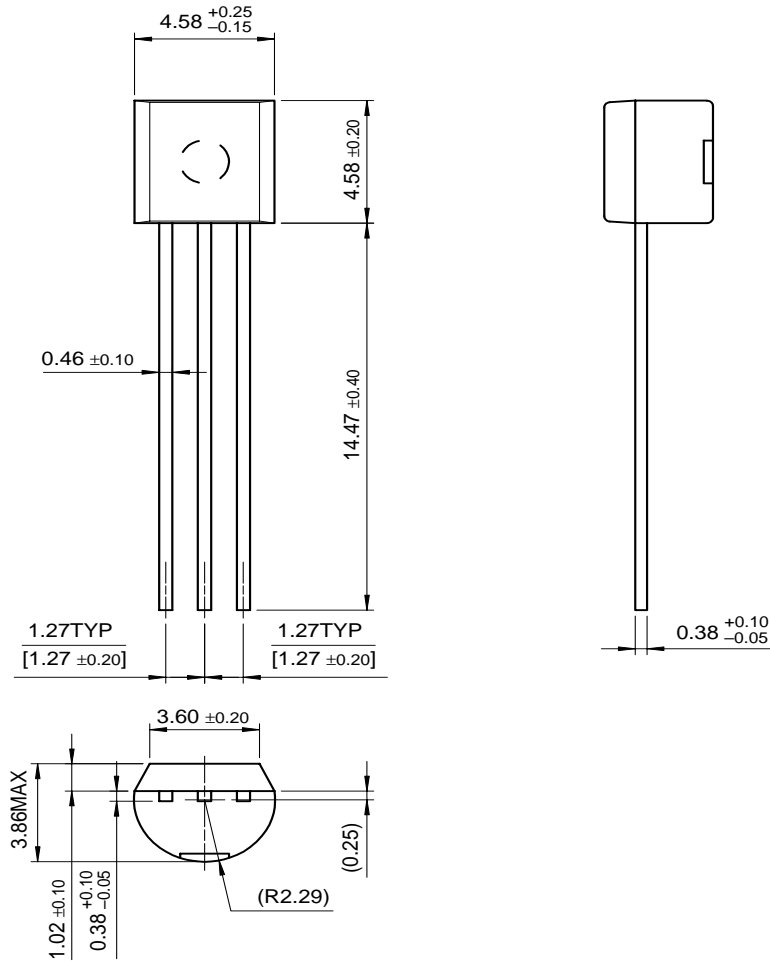
* Pulse Test: Pulse $\leq 300\mu\text{s}$

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

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation	350	mW
	Derate above 25°C	2.8	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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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

PRODUCT STATUS DEFINITIONS

Definition of Terms

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