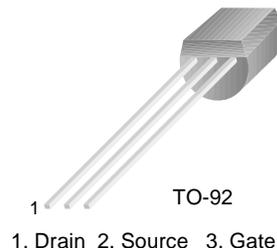


PN4302

N-Channel General Purpose Amplifier

- This device is designed primarily for low level audio and general purpose applications with high impedance signal sources.
- Sourced from process 52.



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	50	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:

- 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.

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

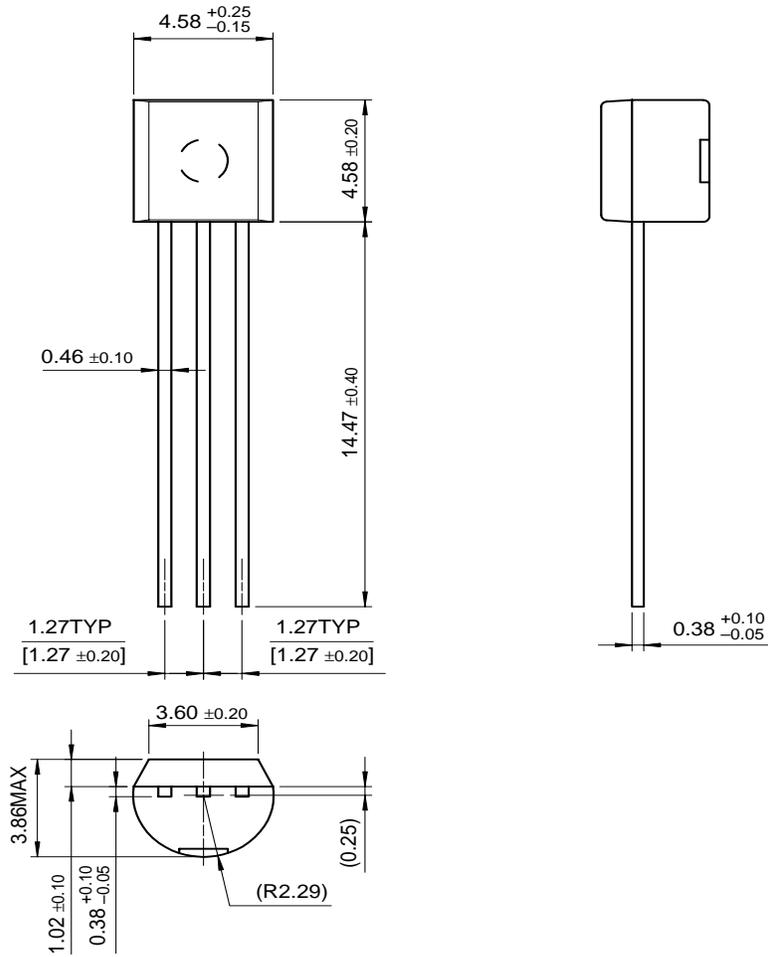
Symbol	Parameter	Test Condition	Min.	Max.	Units
Off Characteristics					
$V_{(BR)GSS}$	Gate-Source Breakdwon Voltage	$I_G = -1.0\mu\text{A}, V_{DS} = 0$	-30		V
I_{GSS}	Gate Reverse Current	$V_{GS} = -10\text{V}, V_{DS} = 0$		-1.0	nA
$V_{GS(off)}$	Gate-Source Cutoff Voltage	$V_{DS} = 20\text{V}, I_D = 1.0\text{nA}$		-4.0	V
On Characteristics					
I_{DSS}	Zero-Gate Voltage Drain Current *	$V_{DS} = -15\text{V}, V_{GS} = 0$	0.5	5.0	mA

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

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation	625	mW
	Derate above 25°C	5.0	mW/ $^\circ\text{C}$
$R_{\theta JC}$	Thermal Resistance, Junction to Case	125	$^\circ\text{C}/\text{W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	$^\circ\text{C}/\text{W}$

Package Dimensions

TO-92



Dimensions in Millimeters

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E ² CMOS™	HiSeC™	MSX™	QT Optoelectronics™	TinyLogic®
EnSigna™	µC™	MSXPro™	Quiet Series™	TINYOPTO™
FACT™	i-Lo™	OCX™	RapidConfigure™	TruTranslation™
Across the board. Around the world.™	OCXPro™	RapidConnect™	UHC™	
The Power Franchise®	OPTOLOGIC®	SILENT SWITCHER®	UltraFET®	
Programmable Active Droop™	OPTOPLANAR™	SMART START™	VCX™	

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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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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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