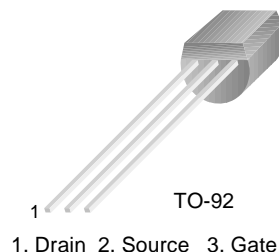


PN4302

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

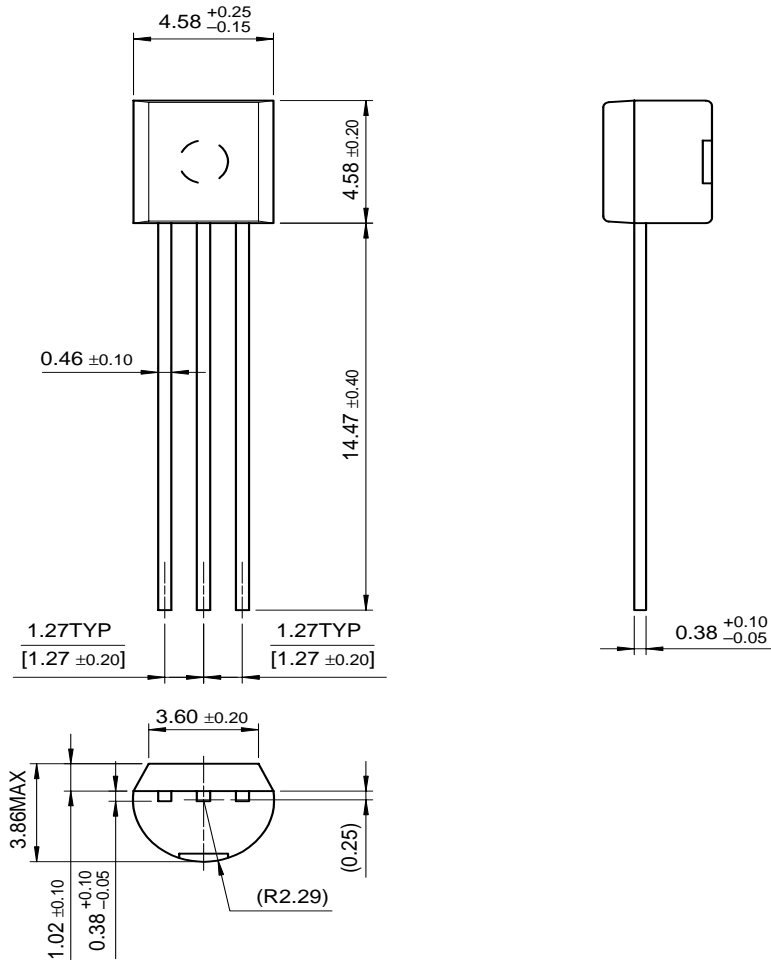
Symbol	Parameter	Test Condition	Min.	Max.	Units
Off Characteristics					
$V_{(BR)GSS}$	Gate-Source Breakdwon Voltage	$I_G = -1.0\mu\text{A}, V_{DS} = 0$	-30		V
I_{GSS}	Gate Reverse Current	$V_{GS} = -10\text{V}, V_{DS} = 0$		-1.0	nA
$V_{GS(off)}$	Gate-Source Cutoff Voltage	$V_{DS} = 20\text{V}, I_D = 1.0\text{nA}$		-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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CoolFET™	FPST™	MICROCOUPLER™	PowerSaver™	SuperSOT™-3
CROSSVOLT™	FRFET™	MicroFET™	PowerTrench®	SuperSOT™-6
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EcoSPARK™	GTO™	MICROWIRE™	QS™	SyncFET™
E ² C MOS™	HiSeC™	MSX™	QT Optoelectronics™	TinyLogic®
EnSigna™	ꞑC™	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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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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