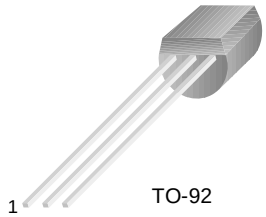
FAIRCHILD
SEMICONDUCTOR®

J271

P-Channel Switch

- This device is designed for low level analog switching sample and hold circuits and chopper stabilized amplifiers.
- Sourced from process 88.



TO-92

1. Drain 2. Gate 3. Source

Absolute Maximum Ratings* T_a=25°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	°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°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
Off Characteristics					
$V_{(BR)GSS}$	Gate-Source Breakdwon Voltage	I_G = 1.0μA, V_{DS} = 0	30		V
I_{GSS}	Gate Reverse Current	V_{GS} = 20V, V_{DS} = 0		200	pA
$V_{GS(off)}$	Gate-Source Cutoff Voltage	V_{DS} = -15V, I_D = 1.0nA	1.5	4.5	V
On Characteristics					
I_{DSS}	Zero-Gate Voltage Drain Current *	V_{DS} = -15V, V_{GS} = 0	-6	-50	mA
Small Signal Characteristics					
gfs	Forward Transferconductance	V_{GS} = 0V, V_{DS} = 15V, f = 1.0kHz	8000	18000	μmhos
goss	Common- Source Output Conductance	V_{GS} = 0V, V_{DS} = 15V, f = 1.0kHz		200	μmhos

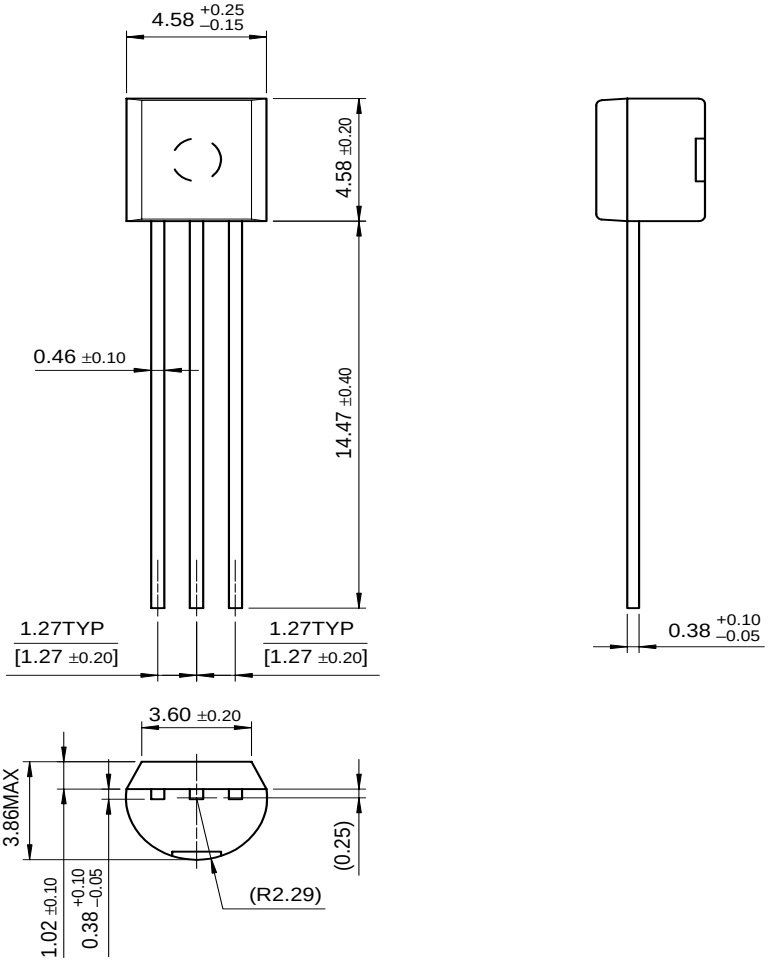
Thermal Characteristics T_a=25°C unless otherwise noted

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

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Package Dimensions

TO-92



Dimensions in Millimeters

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CROSSVOLT™	FRFET™	MicroPak™	QS™	SyncFET™
DOME™	GlobalOptoisolator™	MICROWIRE™	QT Optoelectronics™	TinyLogic®
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E²CMOS™	HiSeC™	MSXPro™	RapidConfigure™	TruTranslation™
EnSigna™	I²C™	OCX™	RapidConnect™	UHC™
FACT™	ImpliedDisconnect™	OCXPro™	SILENT SWITCHER®	UltraFET®
Across the board. Around the world.™		OPTOLOGIC®	SMART START™	VCX™
The Power Franchise™		OPTOPLANAR™	SPM™	
Programmable Active Droop™		PACMAN™	Stealth™	

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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.

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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.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

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