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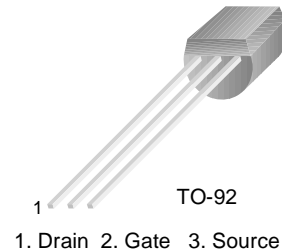
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# J271

## P-Channel Switch

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



## 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
<b>Off Characteristics</b>					
$V_{(BR)GSS}$	Gate-Source Breakdwon Voltage	$I_G = 1.0\mu\text{A}, V_{DS} = 0$	30		V
$I_{GSS}$	Gate Reverse Current	$V_{GS} = 20\text{V}, V_{DS} = 0$		200	pA
$V_{GS(off)}$	Gate-Source Cutoff Voltage	$V_{DS} = -15\text{V}, I_D = 1.0\text{nA}$	1.5	4.5	V
<b>On Characteristics</b>					
$I_{DSS}$	Zero-Gate Voltage Drain Current *	$V_{DS} = -15\text{V}, V_{GS} = 0$	-6	-50	mA
<b>Small Signal Characteristics</b>					
gfs	Forward Transferconductance	$V_{GS} = 0\text{V}, V_{DS} = 15\text{V}, f = 1.0\text{kHz}$	8000	18000	$\mu\text{mhos}$
goss	Common- Source Output Conductance	$V_{GS} = 0\text{V}, V_{DS} = 15\text{V}, f = 1.0\text{kHz}$		200	$\mu\text{mhos}$

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

Symbol	Parameter	Max.	Units
$P_D$	Total Device Dissipation	350	mW
	Derate above $25^\circ\text{C}$	2.8	$\text{mW}/^\circ\text{C}$
$R_{\theta JC}$	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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