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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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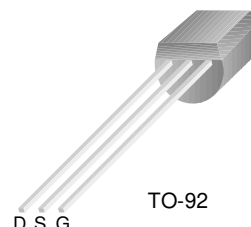
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P-Channel Switch

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



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

Symbol	Parameter	Value	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	$^\circ\text{C}$

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

NOTES:

1. These ratings are based on a maximum junction temperature of 150 degrees C.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{GSS}	Gate-Source Breakdown Voltage	$V_{DS} = 0V, I_G = 1\mu A$	30			V
I_{GSS}	Gate Reverse Current	$V_{GS} = 15V$			2	nA
$I_D(\text{off})$	Drain Cutoff Leakage Current	$V_{DS} = 15V$ $V_{GS} = 12V$			10	nA
		$T = +85^\circ\text{C}$			0.5	μA
I_{DGO}	Drain-Gate Leakage Current	$V_{DG} = 15V$ $I_S = 0$			2	nA
		$T = +85^\circ\text{C}$			0.1	μA
I_{DSS}	Zero-Gate Voltage Drain Current	$V_{DS} = 20V, V_{GS} = 0V$	10			mA
$V_{GS}(\text{off})$	Gate-Source Cutoff Voltage	$V_{DS} = 15V, I_D = 1\mu A$			10	V
$V_{DS}(\text{on})$	Drain-Source On Voltage	$V_{GS} = 0V, I_D = 6mA$			0.5	V
$r_{DS}(\text{on})$	Drain-Source On Resistance	$V_{GS} = 0V, I_D = 1mA$			75	Ω
$r_{ds}(\text{on})$	Drain-Source On Resistance	$V_{GS} = 0V, I_D = 0, f = 1kHz$			75	Ω
C_{iss}	Input Capacitance	$V_{DS} = 15V, V_{GS} = 0V, f = 1MHz$			45	pF
C_{rss}	Reverse Transfer Capacitance	$V_{DS} = 0V, V_{GS} = 12V, f = 1MHz$			10	pF
$t_d(\text{on})$	Trun On Time	$V_{DD} = -6V$			15	ns
t_r	Rise Time	$V_{GS}(\text{off}) = +12V$			20	ns
$t_d(\text{off})$	Trun Off Time	$R_L = 910\Omega$			15	ns
t_f	Fall Time	$I_D(\text{on}) = 6mA$			50	ns

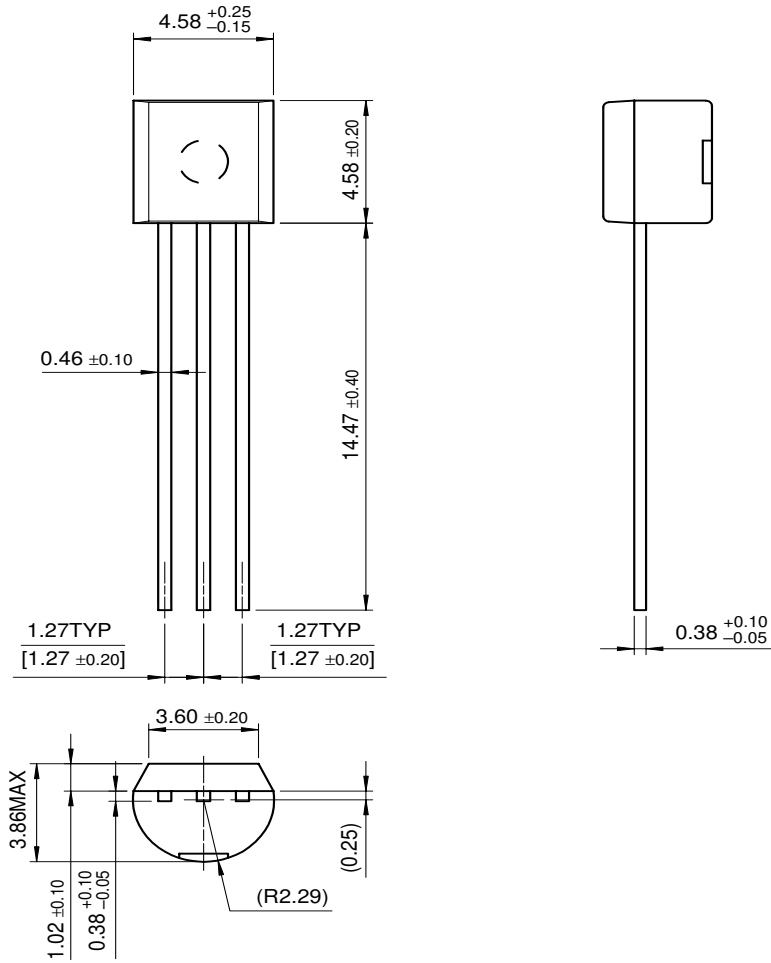
Thermal Characteristics $T_A=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25°C	350 2.8	mW 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

P1086

TO-92



Dimensions in Millimeters

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Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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