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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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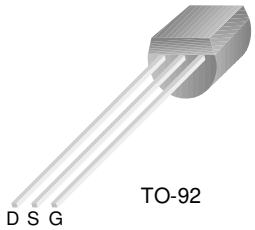
FAIRCHILD
SEMICONDUCTOR®

P1087

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

Absolute Maximum Ratings T_C=25°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	°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°C unless otherwise noted

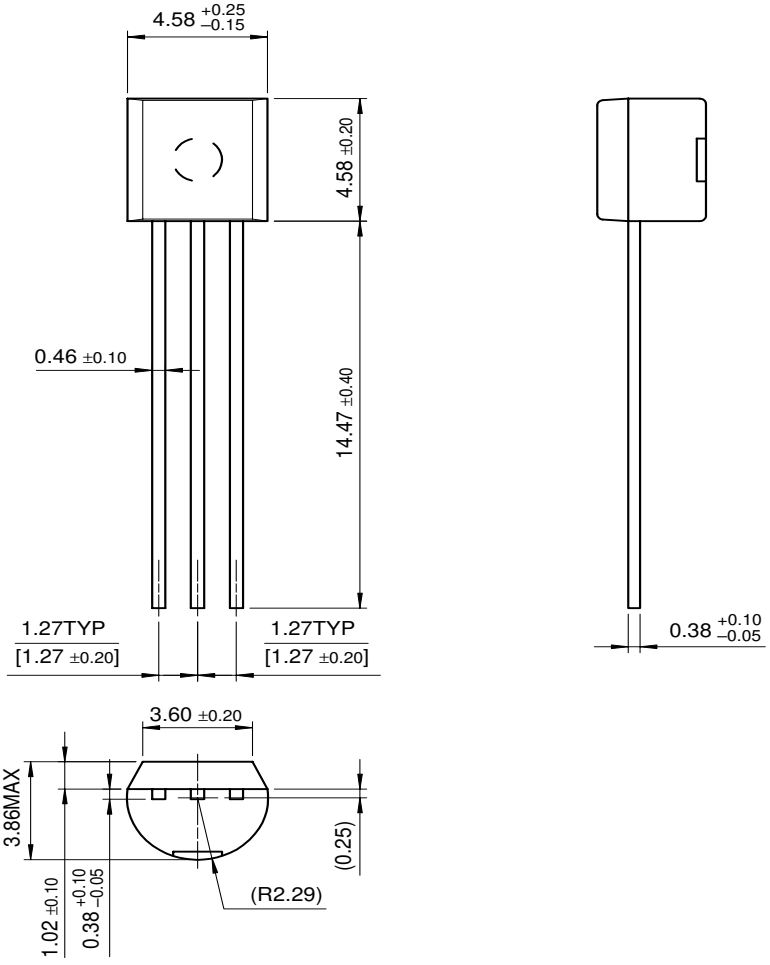
Symbol	Parameter	Test Condition		Min.	Typ.	Max.	Units
BV_{GSS}	Gate-Source Breakdown Voltage	V_{DS} = 0V, IG = 1μA		30			V
I_{GSS}	Gate Reverse Current	V_{GS} = 15V				2	nA
I_D(off)	Drain Cutoff Leakage Current	V_{DS} = 15V V_{GS} = 7V				10	nA
			T = +85°C			0.5	μA
I_{DGO}	Drain-Gate Leakage Current	V_{DG} = 15V I_S = 0				2	nA
			T = +85°C			0.1	μA
I_{DSS}	Zero-Gate Voltage Drain Current	V_{DS} = 20V, V_{GS} = 0V		5			mA
V_{GS}(off)	Gate-Source Cutoff Voltage	V_{DS} = 15V, I_D = 1μA				5	V
V_{DS}(on)	Drain-Source On Voltage	V_{GS} = 0V, I_D = 3mA				0.5	V
r_{DS}(on)	Drain-Source On Resistance	V_{GS} = 0V, I_D = 1mA				150	Ω
r_{ds}(on)	Drain-Source On Resistance	V_{GS} = 0V, I_D = 0, f = 1kHz				150	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} = 7V, f = 1MHz				10	pF
t_d(on)	Trun On Time	V_{DD} = -6V V_{GS}(off) = +7V R_L = 1.8kΩ I_D(on) = -3mA				15	ns
t_r	Rise Time					75	ns
t_d(off)	Trun Off Time					25	ns
t_f	Fall Time					100	ns

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

Package Dimensions

TO-92



Dimensions in Millimeters

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PRODUCT STATUS DEFINITIONS

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.
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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.