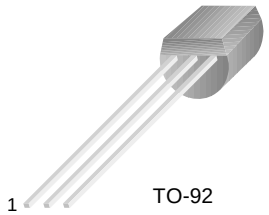
FAIRCHILD
SEMICONDUCTOR®

TIS93

PNP General Purpose Amplifier

- This device is designed for use as general purpose amplifiers and switches requiring collector currents to 500mA.



TO-92

1. Collector 2. Base 3. Emitter

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

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{CBO}	Collector-Base Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5.0	V
I_C	Collector Current - Continuous	-800	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 impaird.

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_A=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
Off Characteristics					
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage *	I_C = -10mA, I_B = 0	-40		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C = -100μA, I_E = 0	-40		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E = -100μA, I_C = 0	-5.0		V
I_{CBO}	Collector Cut-off Current	V_{CB} = -20V, I_E = 0		-100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB} = -3.0V, I_C = 0		- 100	nA
On Characteristics					
h_{FE}	DC Current Gain	V_{CE} = -2.0V, I_C = -50mA	100	300	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = -50mA, I_B = -5.0mA		-0.25	V
V_{BE}(on)	Base-Emitter On Voltage	V_{CE} = -2.0V, I_C = -50mA		-1.0	V

* Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2.0%

Thermal Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation Derate above 25°C	625 5.0	mW mW/°C
$R_{\theta JC}$	Thermal Resistance, Junction to Case	83.3	°C/W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	200	°C/W

Package Dimensions

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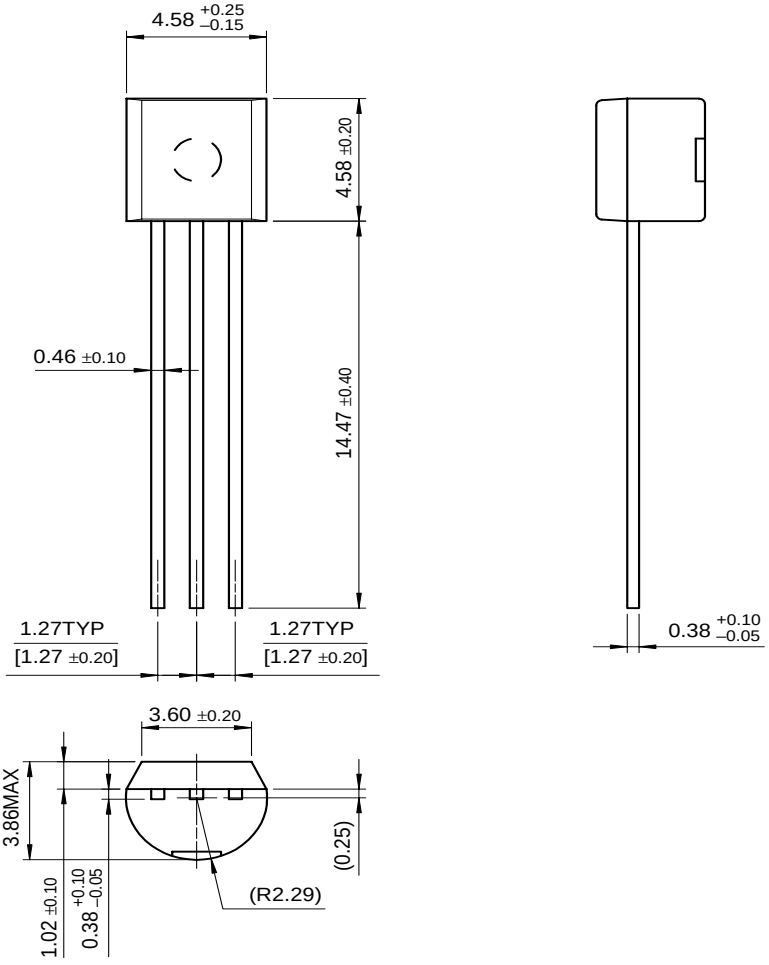

Dimensions in Millimeters

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CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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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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