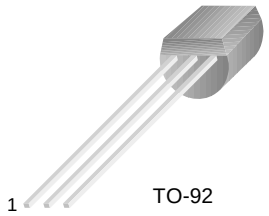
FAIRCHILD
SEMICONDUCTOR®

PN3567

NPN General Purpose Amplifier

- This device is for use as a medium amplifier and switch requiring collector currents up 300mA.
- Sourced from process 19.



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1. Emitter 2. Base 3. Collector

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	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current - Continuous	600	mA
$T_{J,}$ T_{STG}	Operating and Storage Junction Temperature Range	- 55 ~ 150	°C

Electrical Characteristics T_A=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
Off Characteristics						
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage *	I_C = 30mA, I_B = 0	40			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C = 100μA, I_E = 0	80			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E = 10μA, I_C = 0	5			V
I_{CBO}	Collector Cut-off Current	V_{CB} = 40V, I_E = 0 V_{CB} = 40V, I_E = 0, T_A = 75°C			50 5	nA μA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 4V, I_C = 0			25	nA
On Characteristics						
h_{FE}	DC Current Gain	V_{CE} = 1V, I_C = 150mA V_{CE} = 1V, I_C = 30mA	40 40		120	
V_{CE}(sat)	Collector-Emitter Saturation Voltage *	I_C = 150mA, I_B = 15mA			0.25	V
V_{BE}(on)	Base-Emitter On Voltage	V_{CE} = 1V, I_C = 150mA			1.1	V
Small Signal Characteristics						
C_{obo}	Output Capacitance	V_{CB} = 10V, I_E = 0			20	pF
C_{ibo}	Input Capacitance	V_{EB} = 0.5V, I_C = 0			80	

* Pulse Test: Pulse Width ≤ 300ms, 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	mW mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	83.3	°C/W
$R_{\theta JC}$	Thermal Resistance, Junction to Case	200	°C/W

Package Dimensions

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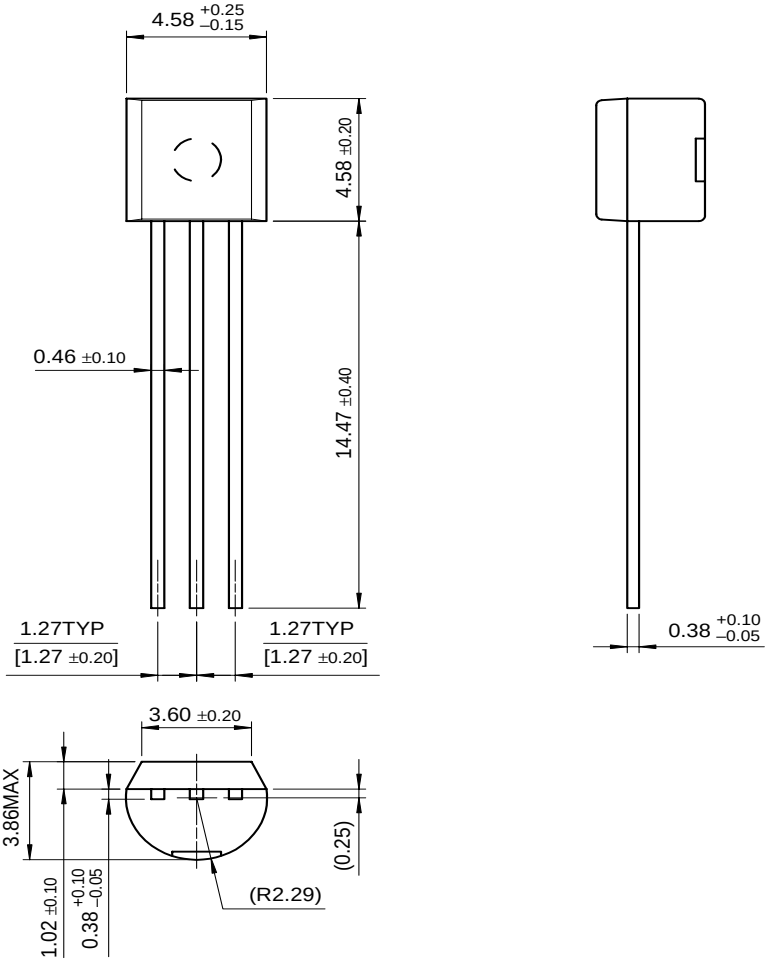

Dimensions in Millimeters

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CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
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The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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