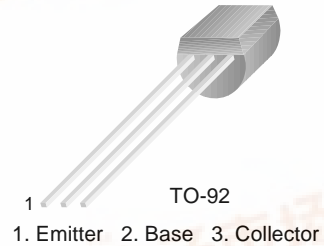


**FAIRCHILD**  
SEMICONDUCTOR®

## PN2222

### General Purpose Transistor



### NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
$V_{CB0}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	30	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current	600	mA
$P_C$	Collector Power Dissipation	625	mW
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

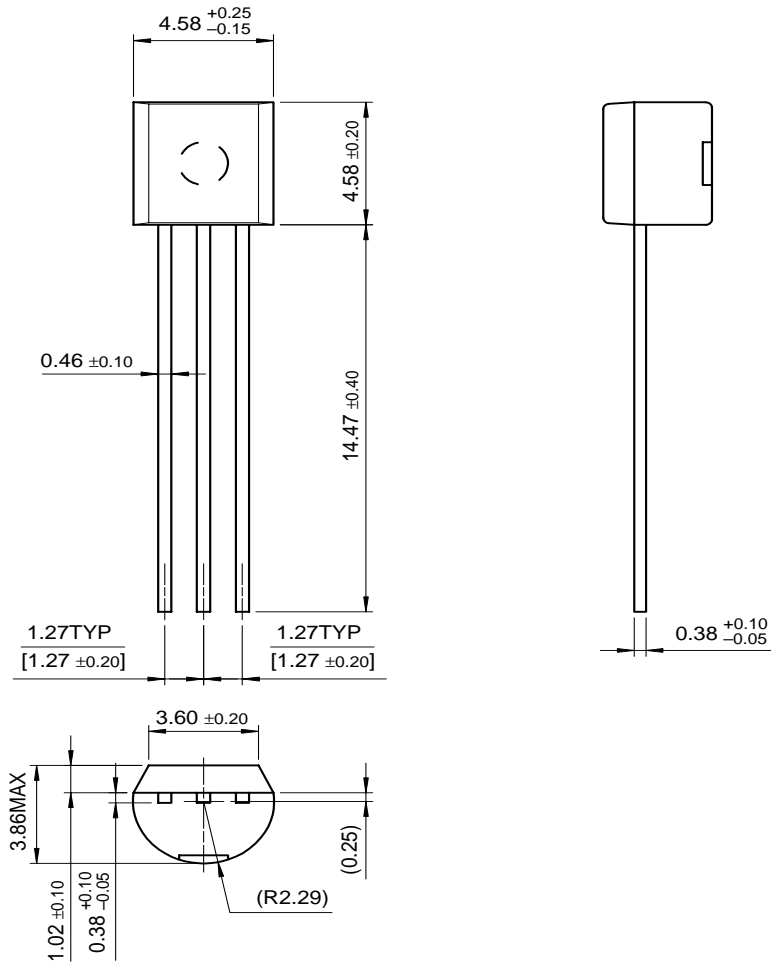
#### Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
$BV_{CB0}$	Collector-Base Breakdown Voltage	$I_C=10\mu\text{A}, I_E=0$	60		V
$BV_{CEO}$	Collector Emitter Breakdown Voltage	$I_C=10\text{mA}, I_B=0$	30		V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\mu\text{A}, I_C=0$	5		V
$I_{CB0}$	Collector Cut-off Current	$V_{CB}=50\text{V}, I_E=0$		0.01	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB}=3\text{V}, I_C=0$		10	nA
$h_{FE}$	DC Current Gain	$V_{CE}=10\text{V}, I_C=0.1\text{mA}$ $V_{CE}=10\text{V}, *I_C=150\text{mA}$	35 100	300	
$V_{CE}(\text{sat})$	* Collector-Emitter Saturation Voltage	$I_C=500\text{mA}, I_B=50\text{mA}$		1	V
$V_{BE}(\text{sat})$	* Base-Emitter Saturation Voltage	$I_C=500\text{mA}, I_B=50\text{mA}$		2	V
$f_T$	Current Gain Bandwidth Product	$V_{CE}=20\text{V}, I_C=20\text{mA}, f=100\text{MHz}$	300		MHz
$C_{ob}$	Output Capacitance	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		8	pF

\* Pulse Test: Pulse Width $\leq 300\mu\text{s}$ , Duty Cycle $\leq 2\%$

# Package Dimensions

## TO-92



Dimensions in Millimeters

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FACT Quiet Series <sup>™</sup>		OPTOLOGIC <sup>®</sup>	μSerDes <sup>™</sup>	UltraFET <sup>®</sup>
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