# FAIRCHILD

SEMICONDUCTOR®

## PN2222

### **General Purpose Transistor**



## **NPN Epitaxial Silicon Transistor**

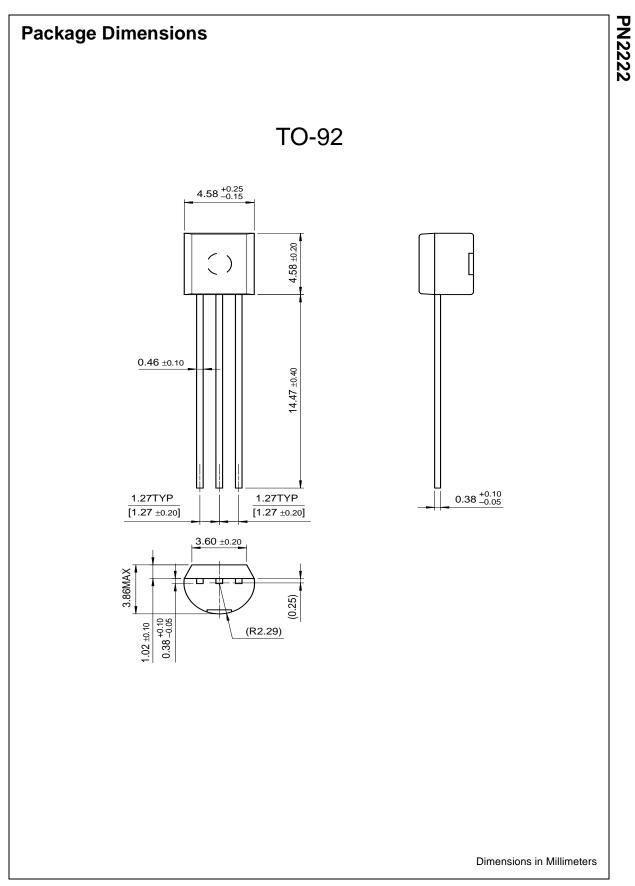
Absolute Maximum Ratings Ta=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage	60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	30	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
с	Collector Current	600	mA
P <sub>C</sub>	Collector Power Dissipation	625	mW
Т <sub>Ј</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

### Electrical Characteristics T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> =10μA, I <sub>E</sub> =0	60		V
BV <sub>CEO</sub>	Collector Emitter Breakdown Voltage	I <sub>C</sub> =10mA, I <sub>B</sub> =0	30		V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> =10μA, I <sub>C</sub> =0	5		V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> =50V, I <sub>E</sub> =0		0.01	μΑ
I <sub>EBO</sub>	Emitter Cut-off Current	V <sub>EB</sub> =3V, I <sub>C</sub> =0		10	nA
h <sub>FE</sub>	DC Current Gain	V <sub>CE</sub> =10V, I <sub>C</sub> =0.1mA V <sub>CE</sub> =10V, <sup>*</sup> I <sub>C</sub> =150mA	35 100	300	
V <sub>CE</sub> (sat)	* Collector-Emitter Saturation Voltage	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA		1	V
V <sub>BE</sub> (sat)	* Base-Emitter Saturation Voltage	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA		2	V
f <sub>T</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> =20V, I <sub>C</sub> =20mA, f=100MHz	300		MHz
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz		8	pF

\* Pulse Test: Pulse Width≤300µs, Duty Cycle≤2%



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