# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

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.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## FAIRCHILD

SEMICONDUCTOR®

## PN2222

## **General Purpose Transistor**



## NPN Epitaxial Silicon Transistor

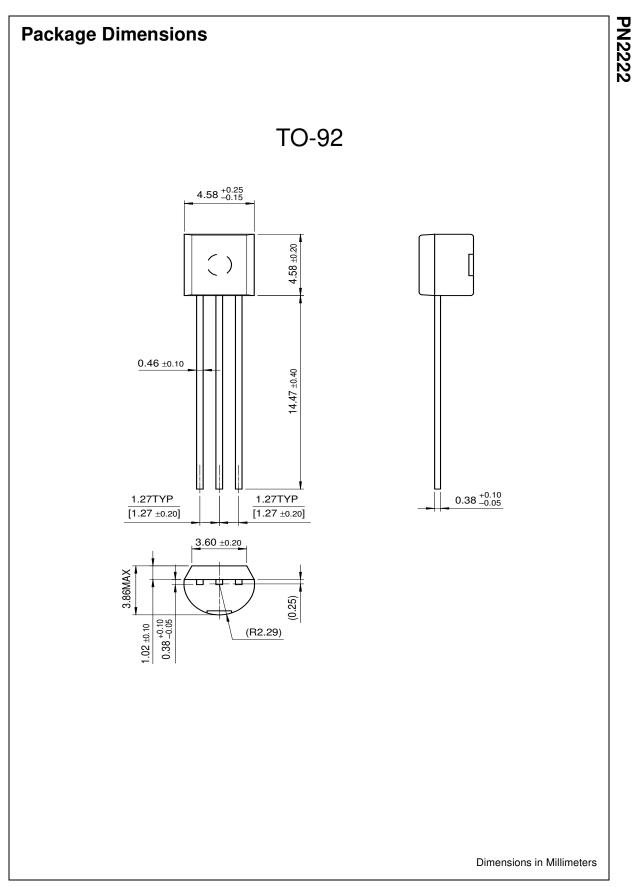
Absolute Maximum Ratings Ta=25°C unless otherwise noted

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
lc	Collector Current	600	mA
P <sub>C</sub>	Collector Power Dissipation	625	mW
ТJ	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

### **Electrical Characteristics** $T_a=25^{\circ}C$ 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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