# FAIRCHILD SEMICONDUCTOR 2N6517 **High Voltage Transistor** • Collector-Emitter Voltage: V<sub>CEO</sub>=350V • Collector Dissipation: P<sub>C</sub> (max)=625mW • Complement to 2N6520

- Suffix "-C" means Center Collector (1. Emitter 2. Collector 3. Base)



2N6517

# **NPN Epitaxial Silicon Transistor**

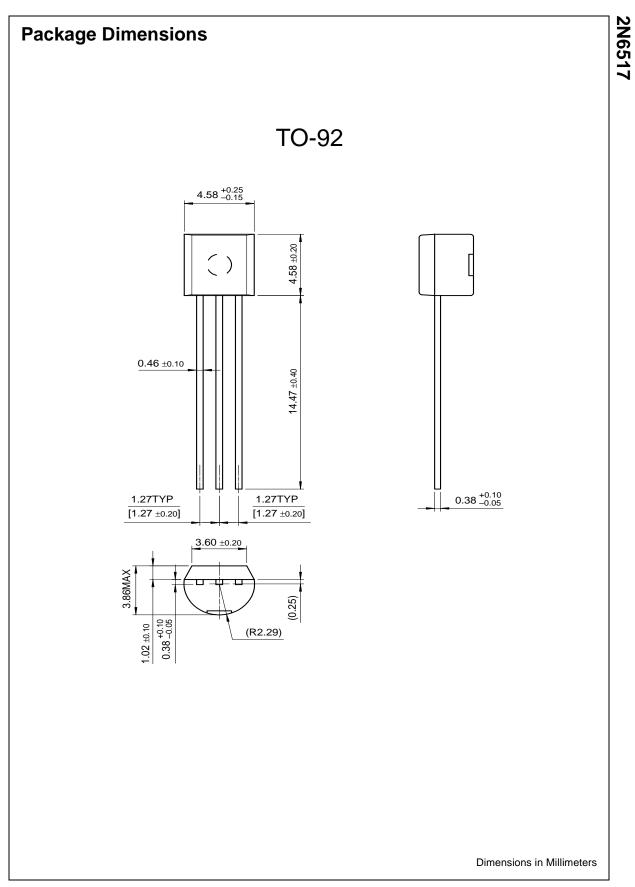
## Absolute Maximum Ratings T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Value	Units	
/ <sub>CBO</sub>	Collector-Base Voltage	350	V	
V <sub>CEO</sub>	Collector-Emitter Voltage	350	V	
V <sub>EBO</sub>	Emitter-Base Voltage	6	V	
c	Collector Current	500	mA	
Pc	Collector Power Dissipation	625	mW	
Г <sub>Ј</sub>	Junction Temperature	150	°C	
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C	

• Refer to 2N6515 for graphs

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

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV <sub>CEO</sub>	* Collector-Emitter Breakdown Voltage	I <sub>C</sub> =1mA, I <sub>B</sub> =0	350			V
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> =100μA, I <sub>E</sub> =0	350			V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> =10μΑ, I <sub>C</sub> =0	6			V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> =250V, I <sub>E</sub> =0			50	nA
I <sub>EBO</sub>	Emitter Cut-off Current	V <sub>EB</sub> =5V, I <sub>C</sub> =0			50	nA
h <sub>FE</sub>	* DC Current Gain	$      I_{C}=1mA, V_{CE}=10V \\       I_{C}=10mA, V_{CE}=10V \\       I_{C}=30mA, V_{CE}=10V \\        I_{C}=50mA, V_{CE}=10V \\        I_{C}=100mA, V_{CE}=10V $	20 30 30 20 15		200 200	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	$I_{C}$ =10mA, $I_{B}$ =1mA $I_{C}$ =20mA, $I_{B}$ =2mA $I_{C}$ =30mA, $I_{B}$ =3mA $I_{C}$ =50mA, $I_{B}$ =5mA			0.3 0.35 0.5 1	V V V V
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage	$I_{C}$ =10mA, $I_{B}$ =1mA $I_{C}$ =20mA, $I_{B}$ =2mA $I_{C}$ =30mA, $I_{B}$ =3mA			0.75 0.85 0.9	V V V
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> =20V, I <sub>E</sub> =0, f=1MHz			6	pF
f <sub>T</sub>	* Current Gain Bandwidth Product	I <sub>C</sub> =10mA, V <sub>CE</sub> =20V, 40 2 f=20MHz		200	MHz	
V <sub>BF</sub> (on)	Base Emitter On Voltage	I <sub>C</sub> =100mA, V <sub>CE</sub> =10V			2	V



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