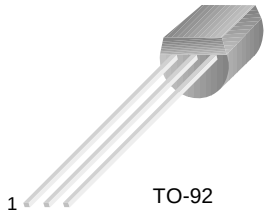
FAIRCHILD
SEMICONDUCTOR®

2N6517

High Voltage Transistor

- Collector-Emitter Voltage: V_{CEO}=350V
- Collector Dissipation: P_C (max)=625mW
- Complement to 2N6520
- Suffix “-C” means Center Collector (1. Emitter 2. Collector 3. Base)



TO-92

1. Emitter 2. Base 3. Collector

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	350	V
V_{CEO}	Collector-Emitter Voltage	350	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	500	mA
P_C	Collector Power Dissipation	625	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

• Refer to 2N6515 for graphs

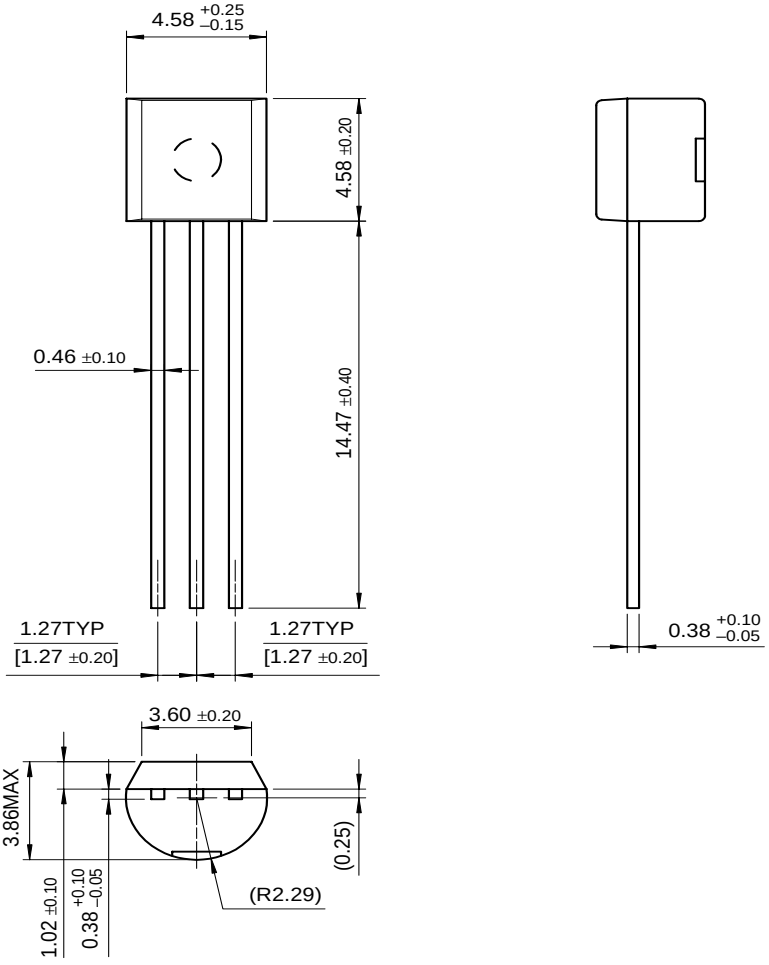
Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	* Collector-Emitter Breakdown Voltage	I_C=1mA, I_B=0	350			V
BV_{CBO}	Collector-Base Breakdown Voltage	I_C=100μA, I_E=0	350			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E=10μA, I_C=0	6			V
I_{CBO}	Collector Cut-off Current	V_{CB}=250V, I_E=0			50	nA
I_{EBO}	Emitter Cut-off Current	V_{EB}=5V, I_C=0			50	nA
h_{FE}	* 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_{CE} (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_{BE} (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_{ob}	Output Capacitance	V_{CB}=20V, I_E=0, f=1MHz			6	pF
f_T	* Current Gain Bandwidth Product	I_C=10mA, V_{CE}=20V, f=20MHz	40		200	MHz
V_{BE}(on)	Base Emitter On Voltage	I_C=100mA, V_{CE}=10V			2	V

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

Package Dimensions

TO-92



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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