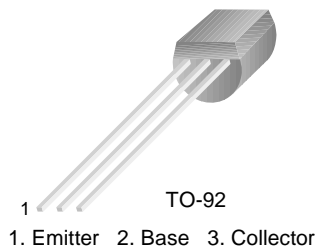


2N6516

High Voltage Transistor

- Collector-Emitter Voltage: $V_{CE0}=300V$
- Collector Dissipation: P_C (max)=625mW
- Complement to 2N6519



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a=25^\circ C$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	300	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	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

• Refer to 2N6515 for graphs

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	* Collector-Emitter Breakdown Voltage	$I_C=1mA, I_B=0$	300			V
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=100\mu A, I_E=0$	300			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=10\mu A, I_C=0$	6			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=200V, I_E=0$			50	nA
I_{EBO}	Emitter Cut-off Current	$V_{BE}=5V, I_C=0$			50	nA
h_{FE}	* DC Current Gain	$I_C=1mA, V_{CE}=10V$ $I_C=10mA, V_{CE}=10V$ $I_C=30mA, V_{CE}=10V$ $I_C=50mA, V_{CE}=10V$ $I_C=100mA, V_{CE}=10V$	30 45 45 40 20		270 200	
$V_{CE(sat)}$	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
$V_{BE(sat)}$	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
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 $\leq 300\mu s$, Duty Cycle $\leq 2\%$

Package Dimensions

2N6516

TO-92



Dimensions in Millimeters

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