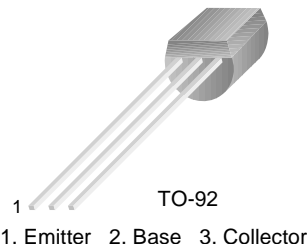


# 2N6519

2N6519

## High Voltage Transistor

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



## PNP 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	-5	V
$I_C$	Collector Current	-500	mA
$I_B$	Base Current	-250	mA
$P_C$	Collector Power Dissipation	625	W
	Derate above $25^\circ C$	5	mW/ $^\circ C$
$T_J$	Junction Temperature	150	$^\circ C$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^\circ C$

• Refer to 2N6520 for graphs

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

Symbol	Parameter	Test Condition	Min.	Max.	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C = -100\mu A, I_E = 0$	-300		V
$BV_{CEO}$	* Collector-Emitter Breakdown Voltage	$I_C = -1mA, I_B = 0$	-300		V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E = -10\mu A, I_C = 0$	-5		V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = -200V, I_E = 0$		-50	nA
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = -4V, I_C = 0$		-50	nA
$h_{FE}$	* DC Current Gain	$V_{CE} = -10V, I_C = -1mA$	30		
		$V_{CE} = -10V, I_C = -10mA$	45		
		$V_{CE} = -10V, I_C = -30mA$	45	270	
		$V_{CE} = -10V, I_C = -50mA$	40	200	
		$V_{CE} = -10V, I_C = -100mA$	20		
$V_{CE} (sat)$	Collector-Emitter Saturation Voltage	$I_C = -10mA, I_B = -1mA$		-0.30	V
		$I_C = -20mA, I_B = -2mA$		-0.35	V
		$I_C = -30mA, I_B = -3mA$		-0.50	V
		$I_C = -50mA, I_B = -5mA$		-1	V
$V_{BE} (sat)$	Base-Emitter Saturation Voltage	$I_C = -10mA, I_B = -1mA$		-0.75	V
		$I_C = -20mA, I_B = -2mA$		-0.85	V
		$I_C = -30mA, I_B = -3mA$		-0.90	V
$V_{BE} (on)$	Base-Emitter On Voltage	$V_{CE} = -10V, I_C = -100mA$		-2	V
$f_T$	* Current Gain Bandwidth Product	$V_{CE} = -20V, I_C = -10mA, f = 20MHz$	40	200	MHz
$C_{ob}$	Output Capacitance	$V_{CB} = -20V, I_E = 0, f = 1MHz$		6	pF
$C_{EB}$	Emitter-Base Capacitance	$V_{EB} = -0.5V, I_C = 0, f = 1MHz$		100	pF
$t_{ON}$	Turn On Time	$V_{BE} (off) = -2V, V_{CC} = -100V$ $I_C = -50mA, I_{B1} = -10mA$		200	ns
$t_{OFF}$	Turn Off Time	$V_{CC} = -100V, I_C = -50mA$ $I_{B1} = I_{B2} = 10mA$		3.5	ns

\* Pulse Test: Pulse Width  $\leq 300\mu s$ , Duty Cycle  $\leq 2\%$

# Package Dimensions

2N6519

## TO-92



Dimensions in Millimeters

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