

2N6515

NPN EPITAXIAL SILICON TRANSISTOR

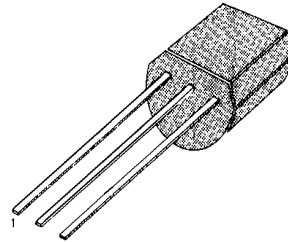
HIGH VOLTAGE TRANSISTOR

- Collector-Emitter Voltage: $V_{CE0} = 250V$
- Collector Dissipation: $P_C(\text{max}) = 625mW$

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ C$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CBO}	250	V
Collector-Emitter Voltage	V_{CEO}	250	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	500	mA
Collector Dissipation	P_C	625	mW
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature	T_{STG}	-55 ~ 150	$^\circ C$

TO-92



1. Emitter 2. Base 3. Collector

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ C$)

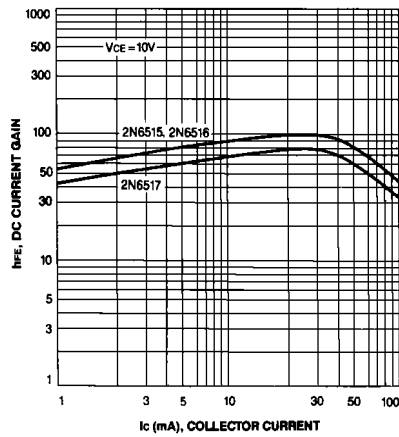
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = 1mA, I_B = 0$	250			V
* Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = 100\mu A, I_E = 0$	250			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = 10\mu A, I_C = 0$	6			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = 150V, I_E = 0$			50	nA
Emitter Cut-off Current	I_{EBO}	$V_{BE} = 5V, I_C = 0$			50	nA
* DC Current Gain	h_{FE}	$I_C = 1mA, V_{CE} = 10V$	35			
		$I_C = 10mA, V_{CE} = 10V$	50			
		$I_C = 30mA, V_{CE} = 10V$	50		300	
		$I_C = 50mA, V_{CE} = 10V$	45		220	
		$I_C = 100mA, V_{CE} = 10V$	25			
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10mA, I_B = 1mA$			0.3	V
		$I_C = 20mA, I_B = 2mA$			0.35	V
		$I_C = 30mA, I_B = 3mA$			0.5	V
		$I_C = 50mA, I_B = 5mA$			1	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10mA, I_B = 1mA$			0.75	V
		$I_C = 20mA, I_B = 2mA$			0.85	V
		$I_C = 30mA, I_B = 3mA$			0.9	V
Collector-Base Capacitance	C_{OB}	$V_{CB} = 20V, I_E = 0$			6	pF
Current Gain Bandwidth Product	f_T	$f = 1MHz$ $I_C = 10mA, V_{CE} = 20V$	40		200	MHz
Base Emitter On Voltage	$V_{BE(on)}$	$I_C = 100mA, V_{CE} = 10V$			2	V

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

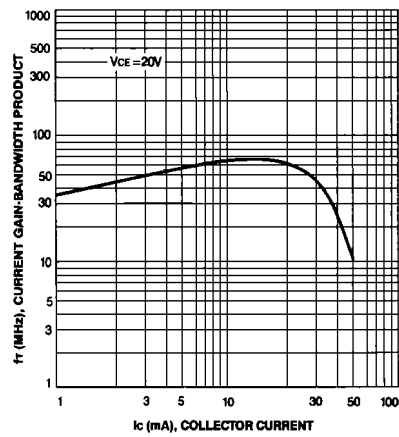
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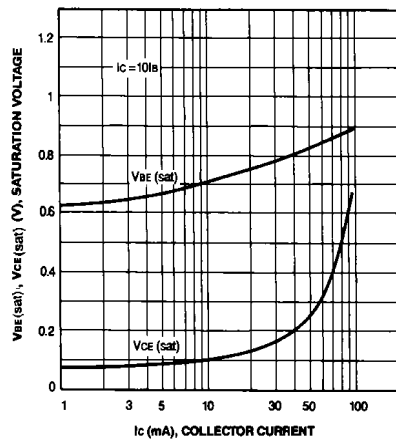
DC CURRENT GAIN



CURRENT GAIN BANDWIDTH PRODUCT



COLLECTOR-EMITTER SATURATION VOLTAGE
BASE-EMITTER SATURATION VOLTAGE



COLLECTOR-BASE CAPACITANCE

