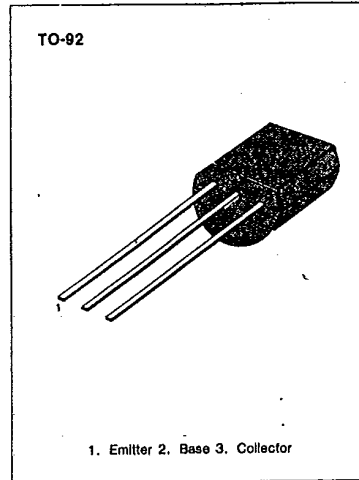


**2N6520****PNP EPITAXIAL SILICON TRANSISTOR**

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**HIGH VOLTAGE TRANSISTOR****ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	-350	V
Collector-Emitter Voltage	$V_{CE0}$	-350	V
Emitter-Base Voltage	$V_{EB0}$	-5	V
Collector Current	$I_C$	-500	mA
Base Current	$I_B$	-250	mA
Collector Dissipation	$P_C$	0.625	W
Derate above $25^\circ\text{C}$		5	mW/ $^\circ\text{C}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55~150	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )**

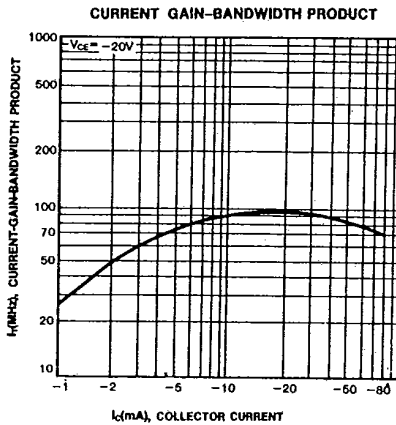
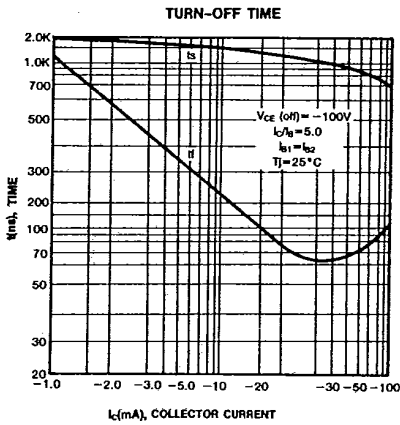
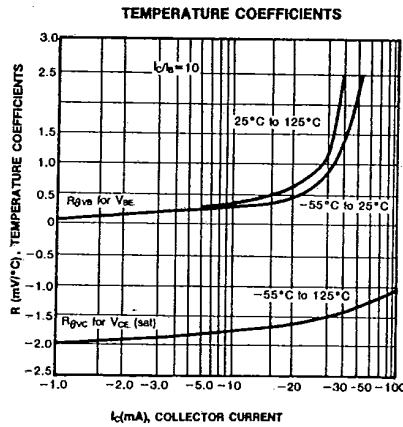
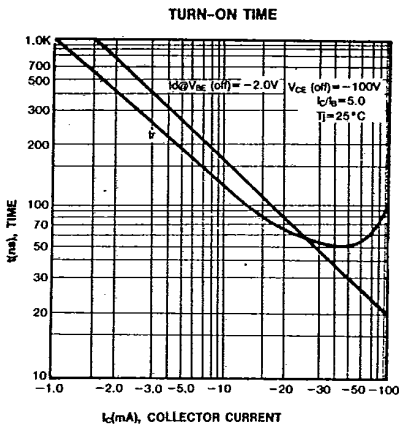
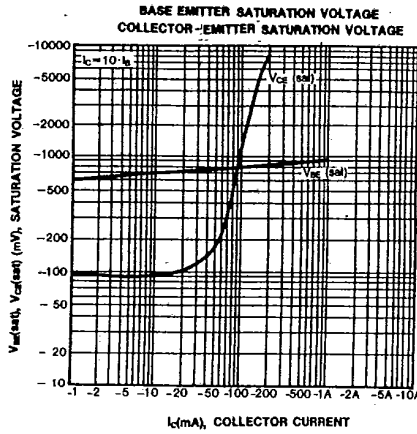
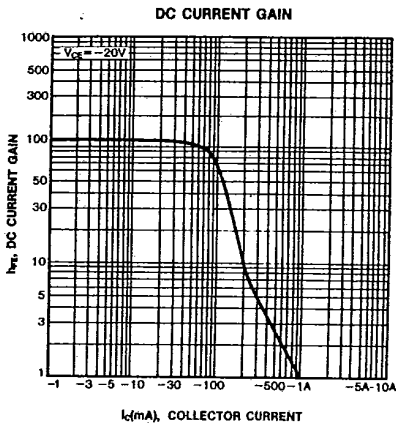
Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector Base Breakdown Voltage	$BV_{CB0}$	$I_C = -100\mu\text{A}, I_E = 0$	-350		V
* Collector Emitter Breakdown Voltage	$BV_{CE0}$	$I_C = -1\text{mA}, I_B = 0$	-350		V
Emitter Base Breakdown Voltage	$BV_{EB0}$	$I_E = -10\mu\text{A}, I_C = 0$	-5		V
Collector Cutoff Current	$I_{CB0}$	$V_{CB} = -250\text{V}, I_E = 0$		-50	nA
Emitter Cutoff Current	$I_{EB0}$	$V_{EB} = -4\text{V}, I_C = 0$		-50	nA
* DC Current Gain	$h_{FE}$	$V_{CE} = -10\text{V}, I_C = -1\text{mA}$	20		
		$V_{CE} = -10\text{V}, I_C = -10\text{mA}$	30		
		$V_{CE} = -10\text{V}, I_C = -30\text{mA}$	30	200	
		$V_{CE} = -10\text{V}, I_C = -50\text{mA}$	20	200	
		$V_{CE} = -10\text{V}, I_C = -100\text{mA}$	15		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$		-0.30	V
		$I_C = -20\text{mA}, I_B = -2\text{mA}$		-0.35	V
		$I_C = -30\text{mA}, I_B = -3\text{mA}$		-0.50	V
		$I_C = -50\text{mA}, I_B = -5\text{mA}$		-1	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$		-0.75	V
		$I_C = -20\text{mA}, I_B = -2\text{mA}$		-0.85	V
		$I_C = -30\text{mA}, I_B = -3\text{mA}$		-0.90	V
Base Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = -10\text{V}, I_C = -100\text{mA}$		-2	V
* Current Gain Bandwidth Product	$f_T$	$V_{CE} = -20\text{V}, I_C = -10\text{mA}, f = 20\text{MHz}$	40	200	MHz
Collector Base Capacitance	$C_{cb}$	$V_{CB} = -20\text{V}, I_E = 0, f = 1\text{MHz}$		6	pF
Emitter Base Capacitance	$C_{eb}$	$V_{EB} = -0.5\text{V}, I_C = 0, f = 1\text{MHz}$		100	pF
Turn On Time	$t_{on}$	$V_{BE(off)} = -2\text{V}, V_{CC} = -100\text{V}$ $I_C = -50\text{mA}, I_{B1} = -10\text{mA}$		200	ns
Turn Off Time	$t_{off}$	$V_{CC} = -100\text{V}, I_C = -50\text{mA}$ $I_{B1} = I_{B2} = -10\text{mA}$		3.5	ns

\* Pulse Test:  $PW \leq 300\mu\text{s}$ , Duty Cycle  $\leq 2\%$

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