



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

DC8550S

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

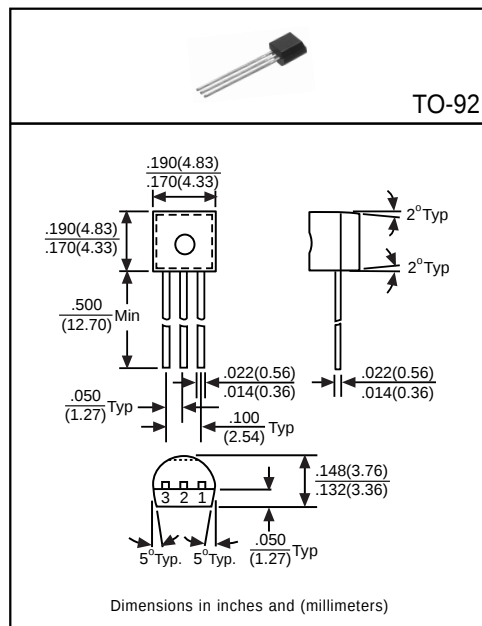
Designed for general purpose amplifier applications.

Pinning

- 1 = Emitter
- 2 = Base
- 3 = Collector

Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	-25	V
Collector-Emitter Voltage	V_{CE0}	-20	V
Emitter-Base Voltage	V_{EB0}	-5	V
Collector Current	I_C	-700	mA
Total Power Dissipation	P_D	625	mW
Junction Temperature	T_J	+150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}\text{C}$



Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV_{CB0}	-25	-	-	V	$I_C=-10\mu\text{A}$
Collector-Emitter Breakdown Voltage	BV_{CE0}	-20	-	-	V	$I_C=-1\text{mA}$
Emitter-Base Breakdown Voltage	BV_{EB0}	-5	-	-	V	$I_E=-10\mu\text{A}$
Collector Cutoff Current	I_{CBO}	-	-	-1	μA	$V_{CB}=-20\text{V}$
Collector-Emitter Saturation Voltage ⁽¹⁾	$V_{CE(sat)}$	-	-	-0.6	V	$I_C=-0.5\text{A}$, $I_B=-50\text{mA}$
Base-Emitter On Voltage ⁽¹⁾	$V_{BE(on)}$	-	-	-1	V	$I_C=-150\text{mA}$, $V_{CE}=-1\text{V}$
DC Current Gain ⁽¹⁾	h_{FE1}	85	-	500	-	$I_C=-150\text{mA}$, $V_{CE}=-1\text{V}$
	h_{FE2}	-	170	-	-	$I_C=-500\text{mA}$, $V_{CE}=-1\text{V}$
Transition Frequency	f_T	150	-	-	MHz	$I_C=-20\text{mA}$, $V_{CE}=-10\text{V}$, $f=100\text{MHz}$
Output Capacitance	C_{ob}	-	-	10	pF	$V_{CB}=-10\text{V}$, $f=1\text{MHz}$

(1) Pulse Test: Pulse Width $\leq 380\mu\text{s}$, Duty Cycle $\leq 2\%$

Classification of h_{FE1}

Rank	B	C	D	E
Range	85~160	100~200	150~300	250~500

RATING AND CHARACTERISTIC CURVES OF DC8550S

FIG.1 - Current Gain & Collector Current

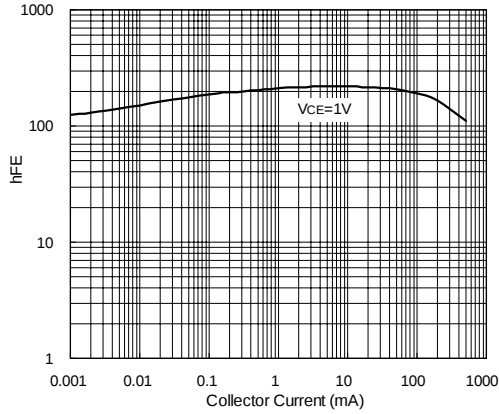


FIG.2 - Saturation Voltage & Collector Current

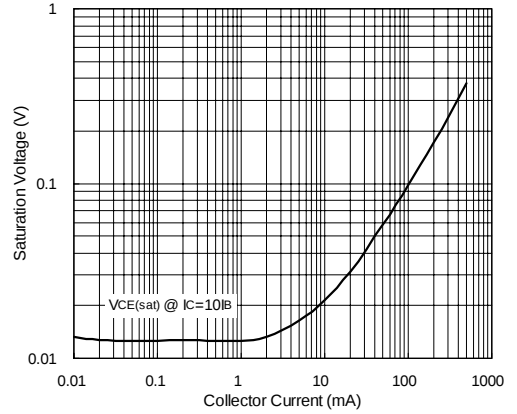


FIG.3 - On Voltage & Collector Current

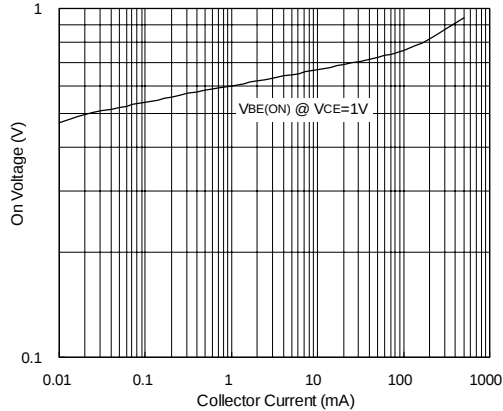


FIG.4 - Cutoff Frequency & Collector Current

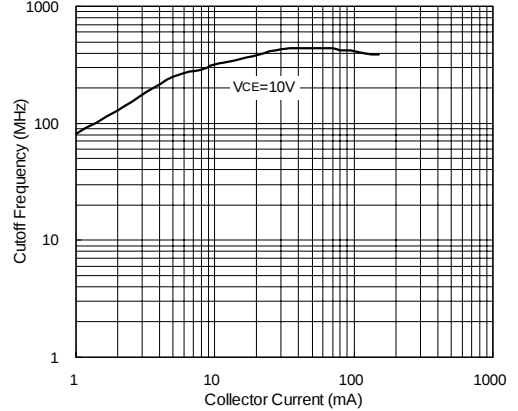


FIG.5 - Capacitance & Reverse-Biased Voltage

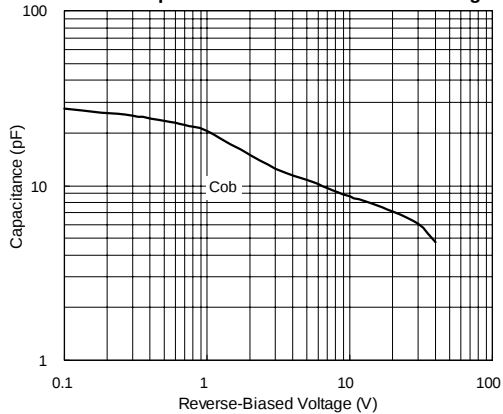
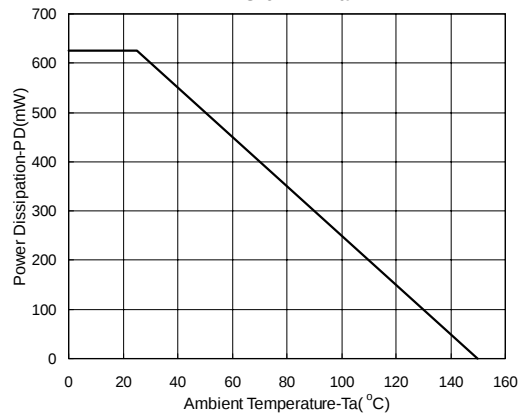


FIG.6 - PD-Ta



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