

**Silicon PNP transistor epitaxial type
AP089**

[Applications]

General purpose

[Feature]

Low collector saturation voltage $V_{CE(sat)} = -0.4V(\text{Max.})$ at $I_C = -50\text{mA}$, $I_B = -5\text{mA}$

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	-40	V
Collector-emitter voltage	VCEO	-40	V
Emitter-base voltage	VEBO	-5	V
Collector current	IC	-0.2	A
Junction temperature	Tj	150	C
Storage temperature	Tstg	-55 to 150	C

[Electrical characteristics (Ta=25C)]

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BVCBO	-40	-	-	V	$I_C = -10\mu\text{A}$, $I_E = 0\text{A}$
Collector-emitter breakdown voltage	BVCEO	-40	-	-	V	$I_C = -10\text{mA}$, $I_B = 0\text{A}$
Emitter-base breakdown voltage	BVEBO	-5	-	-	V	$I_E = -10\mu\text{A}$, $I_C = 0\text{A}$
DC current gain 1	hFE 1	60	-	-	-	$V_{CE} = -1\text{V}$, $I_C = -0.1\text{mA}$
DC current gain 2	hFE 2	80	-	-	-	$V_{CE} = -1\text{V}$, $I_C = -1\text{mA}$
DC current gain 3	hFE 3	90	-	333	-	$V_{CE} = -1\text{V}$, $I_C = -10\text{mA}$
DC current gain 4	hFE 2	60	-	-	-	$V_{CE} = -1\text{V}$, $I_C = -50\text{mA}$
DC current gain 5	hFE 3	30	-	-	-	$V_{CE} = -1\text{V}$, $I_C = -100\text{mA}$
Collector-emitter saturation voltage 1	$V_{CE(sat) 1}$	-	-	-0.25	V	$I_C = -10\text{mA}$, $I_B = -1\text{mA}$
Collector-emitter saturation voltage 2	$V_{CE(sat) 2}$	-	-	-0.4	V	$I_C = -50\text{mA}$, $I_B = -5\text{mA}$
Transition frequency	fT	250	-	-	MHz	$V_{CE} = -20\text{V}$, $I_E = 10\text{mA}$
Collector output capacitance	Cob	-	-	4	pF	$V_{CB} = -5\text{V}$, $f = 1\text{MHz}$, $I_E = 0\text{A}$

Notice 1) These are measured data of transistors assembled by PHENITEC SEMICONDUCTOR Corp. and are for reference only.

Notice 2) The contents described herein are subject to change without notice.