

**Silicon PNP transistor epitaxial type
AP089**
[Applications]

General purpose

[Feature]

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

[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	$I_C = -10\mu A$, $I_E = 0A$
Collector-emitter breakdown voltage	BVCEO	-40	-	-	V	$I_C = -10mA$, $I_B = 0A$
Emitter-base breakdown voltage	BVEBO	-5	-	-	V	$I_E = -10\mu A$, $I_C = 0A$
DC current gain 1	hFE1	60	-	-	-	$V_{CE} = -1V$, $I_C = -0.1mA$
DC current gain 2	hFE2	80	-	-	-	$V_{CE} = -1V$, $I_C = -1mA$
DC current gain 3	hFE3	90	-	333	-	$V_{CE} = -1V$, $I_C = -10mA$
DC current gain 4	hFE4	60	-	-	-	$V_{CE} = -1V$, $I_C = -50mA$
DC current gain 5	hFE5	30	-	-	-	$V_{CE} = -1V$, $I_C = -100mA$
Collector-emitter saturation voltage 1	$V_{CE(sat)1}$	-	-	-0.25	V	$I_C = -10mA$, $I_B = -1mA$
Collector-emitter saturation voltage 2	$V_{CE(sat)2}$	-	-	-0.4	V	$I_C = -50mA$, $I_B = -5mA$
Transition frequency	fT	250	-	-	MHz	$V_{CE} = -20V$, $I_E = 10mA$
Collector output capacitance	Cob	-	-	4	pF	$V_{CB} = -5V$, $f = 1MHz$, $I_E = 0A$

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.

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