

**Silicon NPN transistor epitaxial type  
CP082**

**[ Applications ]**

Low VCE(sat)

**[ Feature ]**

Low collector saturation voltage VCE(sat)= 0.3V(Max.) at IC= 50mA, IB= 5mA

**[ Absolute maximum ratings (Ta=25C) ]**

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	60	V
Collector-emitter voltage	VCEO	40	V
Emitter-base voltage	VEBO	6	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	60	-	-	V	IC= 10uA, IE= 0A
Collector-emitter breakdown voltage	BVCEO	40	-	-	V	IC= 10mA, IB= 0A
Emitter-base breakdown voltage	BVEBO	6	-	-	V	IE= 10uA, IC= 0A
DC current gain 1	hFE 1	40	-	-	-	VCE= 1V, IC= 0.1mA
DC current gain 2	hFE 2	70	-	-	-	VCE= 1V, IC= 1mA
DC current gain 3	hFE 3	90	-	333	-	VCE= 1V, IC= 10mA
DC current gain 4	hFE 4	60	-	-	-	VCE= 1V, IC= 50mA
DC current gain 5	hFE 5	30	-	-	-	VCE= 1V, IC= 100mA
Collector-emitter saturation voltage 1	VCE(sat) 1	-	-	0.2	V	IC= 10mA, IB= 1mA
Collector-emitter saturation voltage 2	VCE(sat) 2	-	-	0.3	V	IC= 50mA, IB= 5mA
Base-emitter saturation voltage	VBE(sat)	-	-	0.95	V	IC= 50mA, IB= 5mA
Transition frequency	fT	250	-	-	MHz	VCE= 20V, IE= -10mA
Collector output capacitance	Cob	-	-	4	pF	VCB= 5V, f= 1MHz, IE= 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.