

Silicon PNP transistor epitaxial type
A5866

[Applications]

Supply line switching circuits
Battery management
DC-DC convertor
Strobe flash
Motor and lamp driver

[Feature]

High DC gain $hFE= 300-600$ at $VCE= -2V, IC= -0.1A$

Low collector saturation voltage $VCE(sat)< -225mV$ at $IC= -1A, IB= -50mA$

[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 (DC)	IC	-2	A
Collector current (Pulse)	ICP	-3	A
Base current (Pulse)	IBP	-0.3	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-emitter breakdown voltage	BVCEO	-40	-	-	V	IC= -10mA, IB= 0A
Collector cut-off current	ICBO	-	-	-100	nA	VCB= -30V, IE= 0A
Emitter cut-off current	IEBO	-	-	-100	nA	VEB= -4V, IC= 0A
DC current gain 1	hFE 1	300	450	600	-	VCE= -2V, IC= -0.1A
DC current gain 2	hFE 2	260	-	-	-	VCE= -2V, IC= -0.5A
DC current gain 3	hFE 3	210	-	-	-	VCE= -2V, IC= -1A
DC current gain 4	hFE 4	100	-	-	-	VCE= -2V, IC= -2A
Collector-emitter saturation voltage 1	VCE(sat) 1	-	-55	-100	mV	IC= -0.1A, IB= -1mA
Collector-emitter saturation voltage 2	VCE(sat) 2	-	-70	-110	mV	IC= -0.5A, IB= -50mA
Collector-emitter saturation voltage 3	VCE(sat) 3	-	-140	-225	mV	IC= -0.75A, IB= -15mA
Collector-emitter saturation voltage 4	VCE(sat) 4	-	-140	-225	mV	IC= -1A, IB= -50mA
Collector-emitter saturation voltage 5	VCE(sat) 5	-	-240	-350	mV	IC= -2A, IB= -0.2A
Base-emitter saturation voltage	VBE(sat)	-	-	-1.1	V	IC= -2A, IB= -0.2A
Base-emitter on voltage	VBE(on)	-	-	-0.75	V	VCE= -2V, IC= -0.1A
Transition frequency	fT	100	200	-	MHz	VCE= -10V, IE= 0.1A
Collector output capacitance	Cob	-	23	28	pF	VCB= -10V, 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.

