Silicon NPN transistor epitaxial type
C5877

[Applications]

DC-DC converter, Strobo flash, Relay drive, Inverter drive
with small VCE(sat) and high current

[Feature]

High collector current
Low collector-emitter saturation voltage VCE(sat)= 500mV (Max.) at IC= 4A, IB= 200mA

[Absolute maximum ratings (Ta=25C)]

Characteristic	Symbol	Maximum ratings	Unit
Collector-base voltage	VCBO	50	V
Collector-emitter voltage	VCEO	25	V
Emitter-base voltage	VEBO	7	V
Collector current	IC	5	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	50	-	-	V	IC= 10uA, IE= 0A
Collector-emitter breakdown voltage	BVCEO	25	-	-	V	IC= 10mA, IB= 0A
Emitter-base breakdown voltage	BVEBO	7	-	-	V	IE= 10uA, IC= 0A
Collector cut-off current	ICBO	-	-	1	uA	VCB= 50V, IE= 0A
Emitter cut-off current	IEBO	-	-	1	uA	VEB= 7V, IE= 0A
DC current gain 1	hFE 1	250	-	550	-	VCE= 2V, IC= 500mA
DC current gain 2	hFE 2	150	-	-	-	VCE= 2V, IC= 2A
DC current gain 3	hFE 3	50	-	-	-	VCE= 2V, IC= 5A
Collector-emitter saturation voltage 1	VCE(sat) 1	-	-	350	mV	IC= 3A, IB= 150mA
Collector-emitter saturation voltage 2	VCE(sat) 2	-	-	500	mV	IC= 4A, IB= 200mA
Base-emitter saturation voltage 1	VBE(sat) 1	-	-	1.1	V	IC= 3A, IB= 150mA
Base-emitter saturation voltage 2	VBE(sat) 2	-	-	1.4	V	IC= 4A, IB= 200mA
Transition frequency	f T	-	400	-	MHz	VCE= 10V, IE= -500mA
Collector output capacitance	Cob	-	15	-	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.