2SC5813

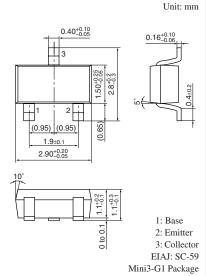
Silicon NPN epitaxial planar type

For DC-DC converter

Features

- Low collector-emitter saturation voltage V_{CE(sat)}
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing

voltage V wnsizing pe packin $T_a = 2$	of the equip g	ment and	$\begin{array}{c c c c c c c c c c c c c c c c c c c $			
Symbol	Rating	Unit				
V _{CBO}	80	V				
V _{CEO}	80	V				
V _{EBO}	5	V	0 to 0.1			
I _C	1.5	А				
I _{CP}	3	A				
P _C	600	mW	Marking Symbol: 5H			



Absolute Maximum Ratings $T_a = 25^{\circ}C$

Parameter

Collector-base voltage (Emitter open)	V _{CBO}	80	V
Collector-emitter voltage (Base open)	V _{CEO}	80	V
Emitter-base voltage (Collector open)	V _{EBO}	5	V
Collector current	I _C	1.5	А
Peak collector current	I _{CP}	3	А
Collector power dissipation *	P _C	600	mW
Junction temperature	Tj	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

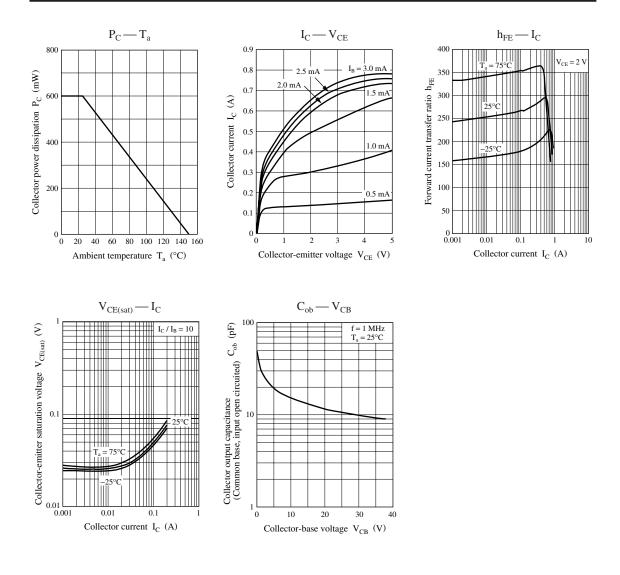
Note) *: Measure on the ceramic substrate at 15 mm \times 15 mm \times 0.6 mm

Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_{C} = 10 \ \mu A, \ I_{E} = 0$	80			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_{\rm C} = 1 {\rm mA}, I_{\rm B} = 0$	80			V
Emitter-base voltage (Collector open)	V _{EBO}	$I_E = 10 \ \mu A, \ I_C = 0$	5			V
Collector-base cutoff current (Emitter open)	I _{CBO}	$V_{CB} = 40 \text{ V}, I_E = 0$			0.1	μΑ
Forward current transfer ratio *	h _{FE}	$V_{CE} = 2 V, I_C = 100 mA$	200			
Collector-emitter saturation voltage *	V _{CE(sat)}	$I_{\rm C} = 1 \text{ A}, I_{\rm B} = 20 \text{ mA}$		350	500	mV
Transition frequency	f _T	$V_{CB} = 10 \text{ V}, I_E = -50 \text{ mA}, f = 200 \text{ MHz}$		180		MHz
Collector output capacitance	C _{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		15	25	pF
(Common base, input open circuited)						

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors. 2. *: Pulse measurement

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