2SC5846G

Silicon NPN epitaxial planar type

For general amplification

■ Features

- High forward current transfer ratio h_{FE}
- SSS-mini type package, allowing downsizing and thinning of the equipment and automatic insertion through the tape packing

■ Package

- Code
  SSSMini3-F2
- Marking Symbol: 7K
- Pin Name
  1. Base
  2. Emitter
  3. Collector

■ Absolute Maximum Ratings $T_a = 25°C$

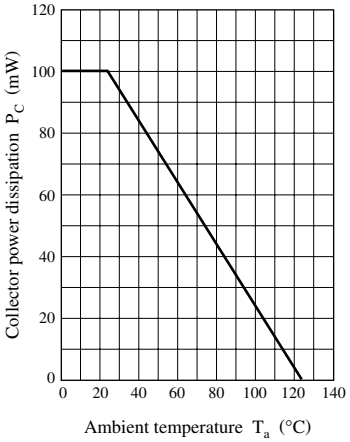
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	60	V
Collector-emitter voltage (Base open)	V_{CEO}	50	V
Emitter-base voltage (Collector open)	V_{EBO}	7	V
Collector current	I_C	100	mA
Peak collector current	I_{CP}	200	mA
Collector power dissipation	P_C	100	mW
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	–55 to +125	°C

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

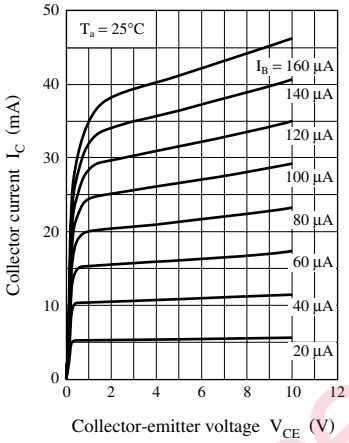
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	I_C = 10 µA, I_E = 0	60			V
Collector-emitter voltage (Base open)	V_{CEO}	I_C = 2 mA, I_B = 0	50			V
Emitter-base voltage (Collector open)	V_{EBO}	I_E = 10 µA, I_C = 0	7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	V_{CB} = 20 V, I_E = 0			0.1	µA
Collector-emitter cutoff current (Base open)	I_{CEO}	V_{CE} = 10 V, I_B = 0			100	µA
Forward current transfer ratio	h_{FE}	V_{CE} = 10 V, I_C = 2 mA	180		390	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 100 mA, I_B = 10 mA		0.1	0.3	V
Collector output capacitance (Common base, input open circuited)	C_{ob}	V_{CB} = 10 V, I_E = 0, f = 1 MHz		2.2		pF
Transition frequency	f_T	V_{CB} = 10 V, I_E = –2 mA, f = 200 MHz		100		MHz

Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

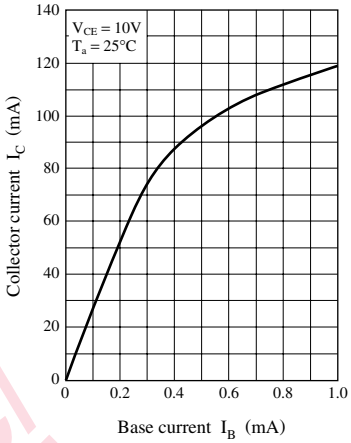
P_C — T_a



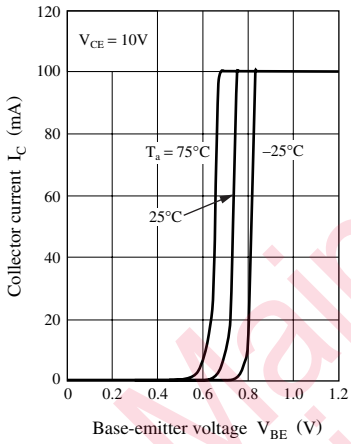
I_C — V_{CE}



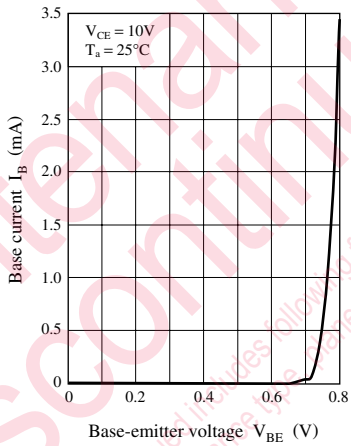
I_C — I_B



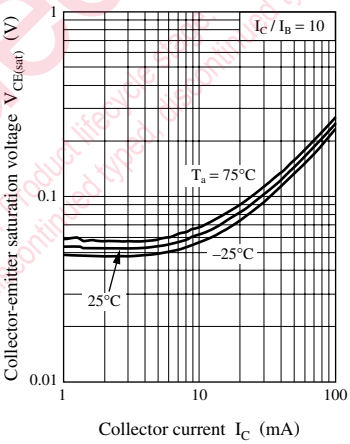
I_C — V_{BE}



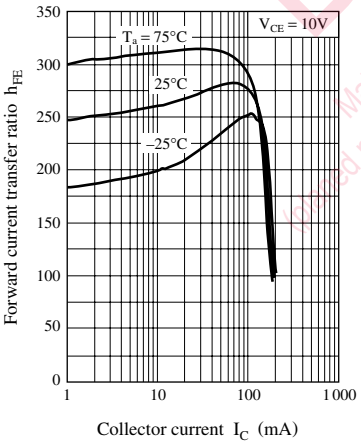
I_B — V_{BE}



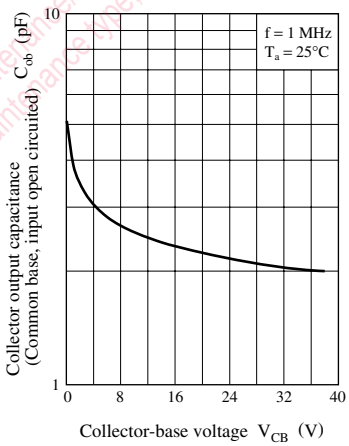
$V_{CE(sat)}$ — I_C



h_{FE} — I_C

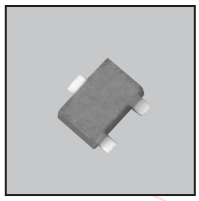


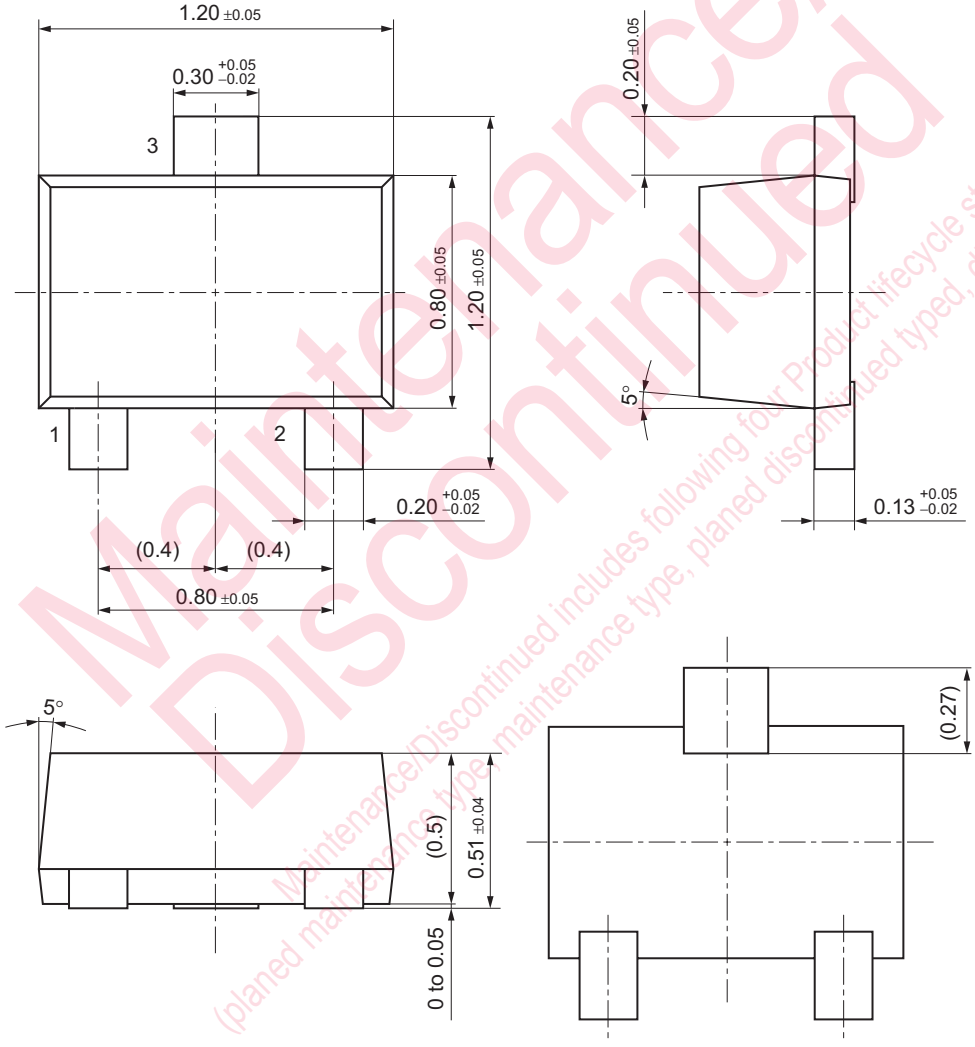
C_{ob} — V_{CB}



SSSMini3-F2

Unit: mm





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