

2SA2078

Silicon PNP epitaxial planar type

For general amplification
Complementary to 2SC5846

■ Features

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

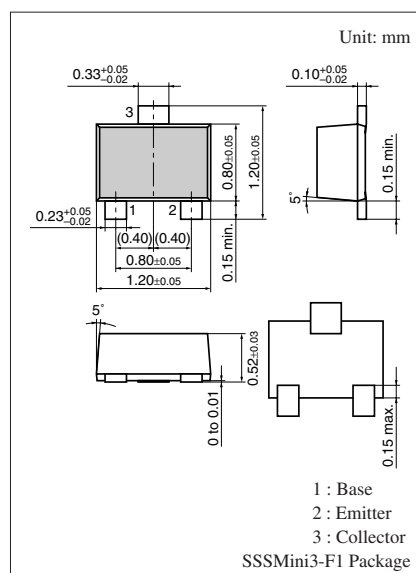
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

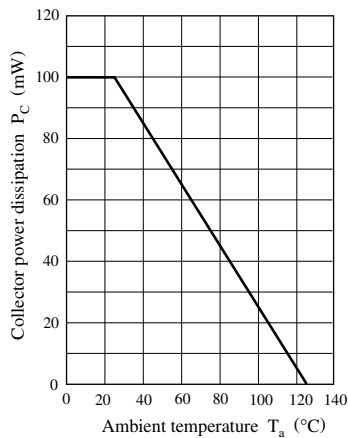
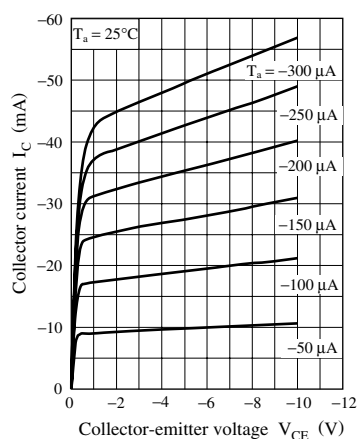
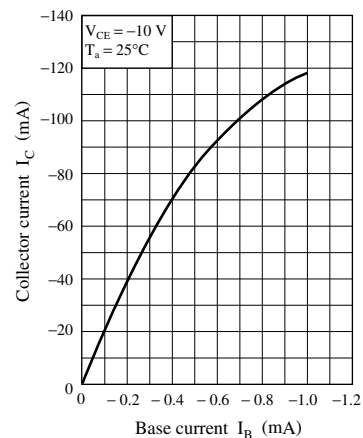
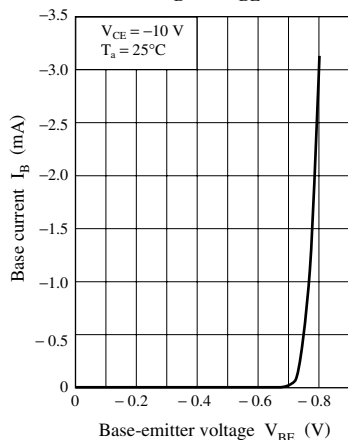
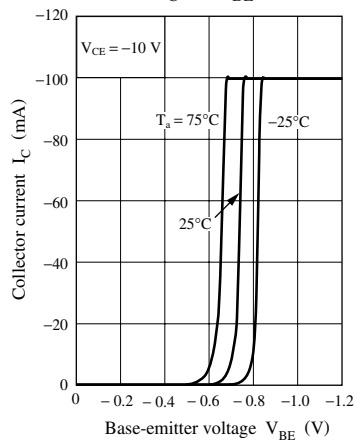
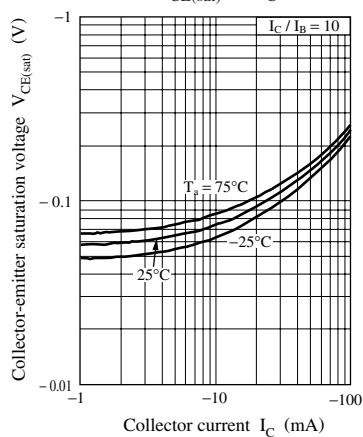
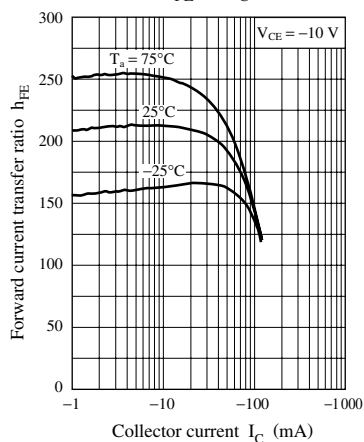
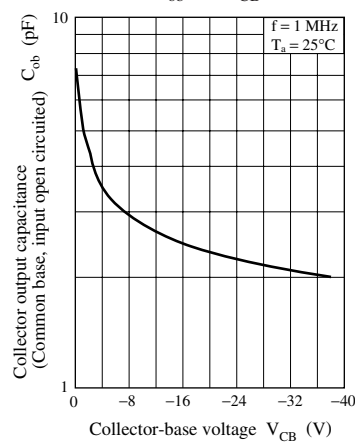
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10\ \mu\text{A}$, $I_E = 0$	-60			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -100\ \mu\text{A}$, $I_B = 0$	-50			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10\ \mu\text{A}$, $I_C = 0$	-7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -20\ \text{V}$, $I_E = 0$			-0.1	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -10\ \text{V}$, $I_B = 0$			-100	μA
Forward current transfer ratio	h_{FE}	$V_{CE} = -10\ \text{V}$, $I_C = -2\ \text{mA}$	180		390	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\ \text{mA}$, $I_B = -10\ \text{mA}$		-0.2	-0.5	V
Transition frequency	f_T	$V_{CB} = -10\ \text{V}$, $I_E = 1\ \text{mA}$, $f = 200\ \text{MHz}$		80		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$		2.2		pF

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



Marking Symbol: 7H

$P_C - T_a$  $I_C - V_{CE}$  $I_C - I_B$  $I_B - V_{BE}$  $I_C - V_{BE}$  $V_{CE(sat)} - I_C$  $h_{FE} - I_C$  $C_{ob} - V_{CB}$ 

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