# 2SA2078

# Silicon PNP epitaxial planar type

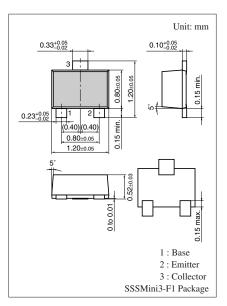
For general amplification Complementary to 2SC5846

## Features

- $\bullet$  High forward current transfer ratio  $h_{F\!E}$
- SSS-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

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

Parameter	Symbol	Rating	Unit				
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	-60	V				
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	-50	V				
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	-7	V				
Collector current	I <sub>C</sub>	-100	mA				
Peak collector current	I <sub>CP</sub>	-200	mA				
Collector power dissipation	P <sub>C</sub>	100	mW				
Junction temperature	Tj	125	°C				
Storage temperature	T <sub>stg</sub>	-55 to +125	°C				

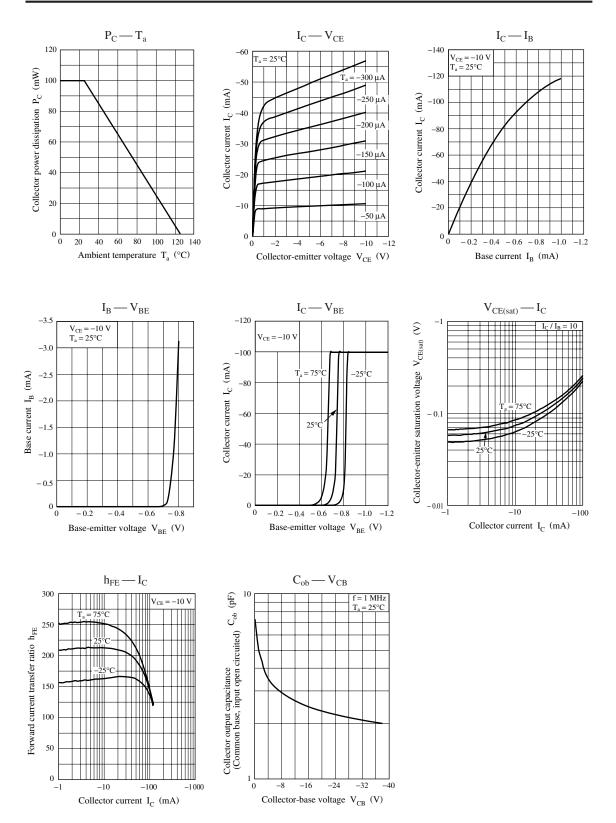


#### Marking Symbol: 7H

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

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_{C} = -10 \ \mu A, \ I_{E} = 0$	-60			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{C} = -100 \ \mu A, \ I_{B} = 0$	-50			V
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	$I_{\rm E} = -10 \ \mu A, \ I_{\rm C} = 0$	-7			V
Collector-base cutoff current (Emitter open)	I <sub>CBO</sub>	$V_{CB} = -20 \text{ V}, I_E = 0$			- 0.1	μΑ
Collector-emitter cutoff current (Base open)	I <sub>CEO</sub>	$V_{CE} = -10 \text{ V}, I_B = 0$			-100	μΑ
Forward current transfer ratio	h <sub>FE</sub>	$V_{CE} = -10 \text{ V}, I_C = -2 \text{ mA}$	180		390	_
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{C} = -100 \text{ mA}, I_{B} = -10 \text{ mA}$		- 0.2	- 0.5	V
Transition frequency	f <sub>T</sub>	$V_{CB} = -10 \text{ V}, I_E = 1 \text{ mA}, f = 200 \text{ MHz}$		80		MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		2.2		pF
(Common base, input open circuited)						

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



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