## 2SA1890G

### Silicon PNP epitaxial planar type

For low-frequency output amplification Complementary to 2SC5026G

#### ■ Features

- Low collector-emitter saturation voltage V<sub>CE(sat)</sub>
- ullet High collector-emitter voltage (Base open)  $V_{CEO}$
- Mini power type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

#### ■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	$V_{CBO}$	-80	V	
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	-80	V	
Emitter-base voltage (Collector open)	$V_{EBO}$	-5	V	
Collector current	$I_{C}$	-1	A	
Peak collector current	$I_{CP}$	-1.5	A	
Collector power dissipation *	P <sub>C</sub>	1	W	
Junction temperature	T <sub>j</sub>	150	°C	
Storage temperature	T <sub>stg</sub>	-55 to +150	o °C	

Note) \*: Printed circuit board: Copper foil area of 1 cm<sup>2</sup> or more, and the board thickness of 1.7 mm for the collector portion

### ■ Package

- Code MiniP3-F2
- Pin Name
  - 1: Base
  - 2: Collector
- 3: Emitter
- Marking Symbol: 1Z

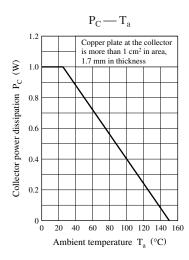
#### ■ Electrical Characteristics $T_a = 25$ °C $\pm 3$ °C

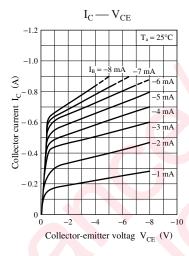
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	$I_{\rm C} = -10 \mu\text{A},  I_{\rm E} = 0$	-80			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{\rm C} = -1 \text{ mA}, I_{\rm B} = 0$	-80			V
Emitter-base voltage (Collector open)	$V_{EBO}$	$I_E = -10 \mu\text{A},  I_C = 0$	-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 <sub>FE1</sub> *2	$V_{CE} = -2 \text{ V}, I_{C} = -100 \text{ mA}$	120		340	_
	h <sub>FE2</sub> *1	$V_{CE} = -2 \text{ V}, I_{C} = -500 \text{ mA}$	60			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$		- 0.2	- 0.3	V
Base-emitter saturation voltage *1	V <sub>BE(sat)</sub>	$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$		- 0.85	-1.2	V
Transition frequency	$f_T$	$V_{CB} = -10 \text{ V}, I_E = 50 \text{ mA}, f = 200 \text{ MHz}$		120		MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		15	30	pF
(Common base, input open circuited)						

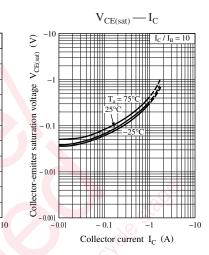
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

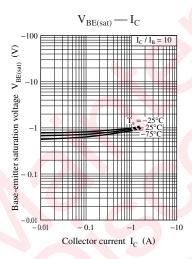
- 2. \*1: Pulse measurement
  - \*2: Rank classification

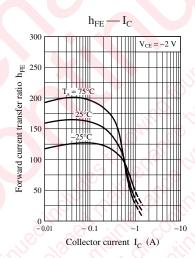
Rank	R	S
h <sub>FE1</sub>	120 to 240	170 to 340

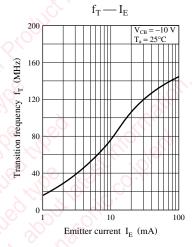


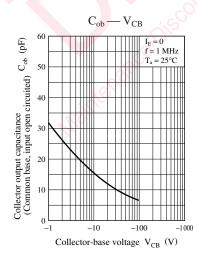






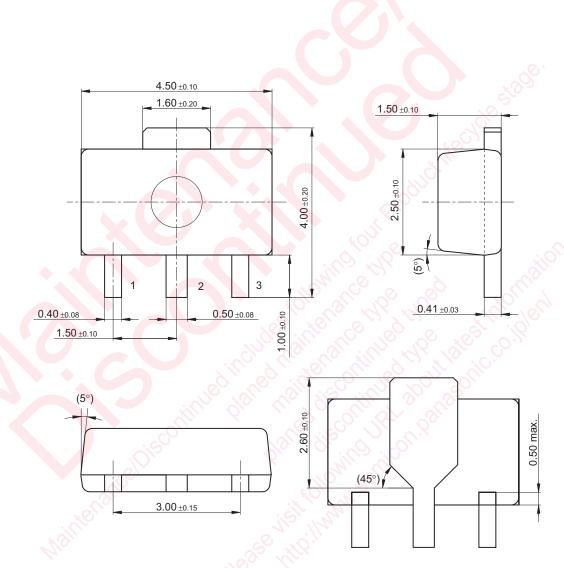






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MiniP3-F2 Unit: mm



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