# imall

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Tel: +86-755-8981 8866 Fax: +86-755-8427 6832 Email & Skype: info@chipsmall.com Web: www.chipsmall.com Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## 2SA1790J

### Silicon PNP epitaxial planar type

For high-frequency amplification Complementary to 2SC4626J

#### Features

- Optimum for RF amplification of FM/AM radios
- High transition frequency  $f_T$
- SS-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing

5' 0' P 0' P 0' P 0' P 0' P 0' P 0' P 0'	Unit: mm 1.60 <sup>+0.05</sup> 1.00±005 3 3 1 0.27±0.02 0.50)(0.50)	
SSMini3-F1 Package	EIAJ: SC-89	1: Base 2: Emitter

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	-30	V	
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	-20	V	
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	-5	V	
Collector current	I <sub>C</sub>	-30	mA	
Collector power dissipation	P <sub>C</sub>	125	mW	
Junction temperature	Tj	125	°C	
Storage temperature	T <sub>stg</sub>	-55 to +125	°CO	

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

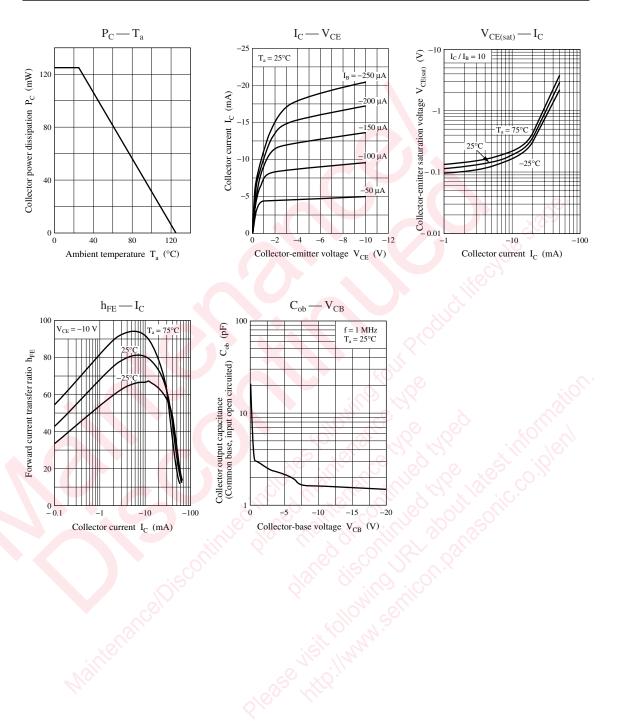
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Base-emitter voltage	V <sub>BE</sub>	$V_{CE} = -10 \text{ V}, I_C = -1 \text{ mA}$	X0~ (	- 0.7		V
Collector-base cutoff current (Emitter open)	I <sub>CBO</sub>	$V_{CB} = -10 \text{ V}, I_E = 0$	- A		- 0.1	μΑ
Collector-emitter cutoff current (Base open)	I <sub>CEO</sub>	$V_{CE} = -20 \text{ V}, I_B = 0$	$\sqrt{2}$		-100	μΑ
Emitter-base cutoff current (Collector open)	I <sub>EBO</sub>	$V_{EB} = -5 V, I_C = 0$			-10	μΑ
Forward current transfer ratio *	h <sub>FE</sub>	$V_{CE} = -10 \text{ V}, I_C = -1 \text{ mA}$	70		220	_
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{\rm C} = -10 \text{ mA}, I_{\rm B} = -1 \text{ mA}$		- 0.1		V
Transition frequency	f <sub>T</sub>	$V_{CB} = -10 \text{ V}, I_E = 1 \text{ mA}, f = 200 \text{ MHz}$	150	300		MHz
Noise figure	NF	$V_{CB} = -10 V, I_E = 1 mA, f = 5 MHz$		2.8	4.0	dB
Reverse transfer impedance	Z <sub>rb</sub>	$V_{CB} = -10 \text{ V}, I_E = 1 \text{ mA}, f = 2 \text{ MHz}$		22	50	Ω
Reverse transfer capacitance (Common emitter)	C <sub>re</sub>	$V_{CB} = -10 \text{ V}, I_E = 1 \text{ mA}, f = 10.7 \text{ MHz}$		1.2	2.0	pF

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

Rank	В	С
h <sub>FE</sub>	70 to 140	110 to 220

#### 2SA1790J





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