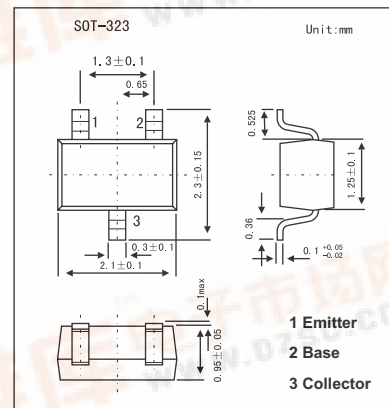


SMD Type Transistors

NPN High-Voltage Transistor  
BF822W

■ Features

- Low current (max. 50 mA)
- High voltage (max. 250 V).



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage (open emitter)	V <sub>CB0</sub>	250	V
Collector-emitter voltage (open base)	V <sub>CEO</sub>	250	V
Emitter-base voltage (open collector)	V <sub>EBO</sub>	5	V
Collector current	I <sub>C</sub>	50	mA
Peak collector current	I <sub>CM</sub>	100	mA
Peak base current	I <sub>BM</sub>	50	mA
Total power dissipation * (T <sub>amb</sub> ≤ 25°C;)	P <sub>tot</sub>	200	mW
Storage temperature	T <sub>stg</sub>	-65 to +150	°C
Junction temperature	T <sub>j</sub>	150	°C
Operating ambient temperature	R <sub>amb</sub>	-65 to +150	°C
Thermal resistance from junction to ambient *	R <sub>th j-a</sub>	625	K/W

\* Transistor mounted on an FR4 printed-circuit board.

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I <sub>CBO</sub>	I <sub>E</sub> = 0; V <sub>CB</sub> = 200 V			10	nA
		I <sub>E</sub> = 0; V <sub>CB</sub> = 200 V; T <sub>j</sub> = 150 °C			10	µA
Emitter cutoff current	I <sub>EBO</sub>	I <sub>C</sub> = 0; V <sub>EB</sub> = 5 V			50	nA
DC current gain	h <sub>FE</sub>	I <sub>C</sub> = 25 mA; V <sub>CE</sub> = 20 V	50			
Collector-emitter saturation voltage *	V <sub>CEsat</sub>	I <sub>C</sub> = 30 mA; I <sub>B</sub> = 5 mA			600	mV
Feedback capacitance	C <sub>re</sub>	I <sub>C</sub> = 0; V <sub>CB</sub> = 30 V; f = 1 MHz			1.6	pF
Transition frequency	f <sub>r</sub>	I <sub>C</sub> = 10 mA; V <sub>CE</sub> = 10 V; f=100MHz	60			MHz

\* Pulse test: t<sub>p</sub> ≤ 300 µs; δ ≤ 0.02.

■ Marking

Marking	1W
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