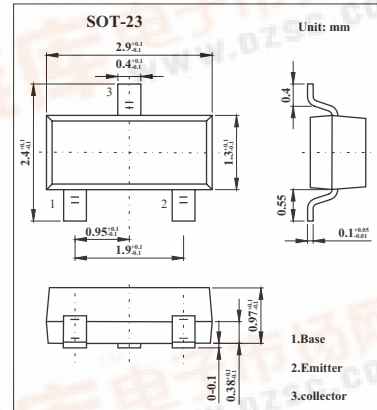


SMD Type Transistors

NPN Medium Frequency Transistor  
BF840

■ Features

- Low current (max. 25 mA).
- Low voltage (max. 40 V).



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	40	V
Collector-emitter voltage	V <sub>CE0</sub>	40	V
Emitter-base voltage	V <sub>EB0</sub>	4	V
Collector current	I <sub>c</sub>	25	mA
Peak collector current	I <sub>CM</sub>	25	mA
Total power dissipation *	P <sub>tot</sub>	250	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>	500	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> = 20 V			100	nA
Emitter cutoff current	I <sub>EBO</sub>	I <sub>c</sub> = 0; V <sub>EB</sub> = 4 V			100	nA
DC current gain	h <sub>FE</sub>	I <sub>c</sub> = 1 mA; V <sub>CE</sub> = 10 V	67		222	
Base to emitter voltage	V <sub>BE</sub>	I <sub>c</sub> = 1 mA; V <sub>CE</sub> = 10 V	675	725	775	mV
Feedback capacitance	C <sub>re</sub>	I <sub>c</sub> = 0; V <sub>CB</sub> = 10 V; f = 1 MHz		0.3		pF
Transition frequency	f <sub>T</sub>	I <sub>c</sub> = 1 mA; V <sub>CE</sub> = 10 V; f = 100 MHz		380		MHz

■ Marking

Marking	NC
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