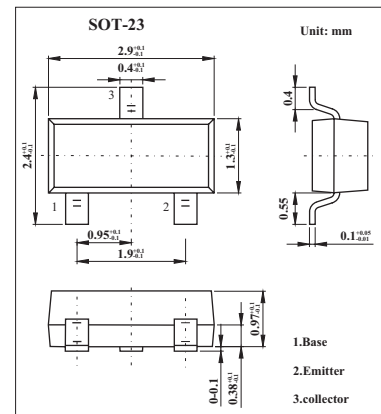


NPN Medium Frequency Transistor

BF840

■ Features

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

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	40	V
Collector-emitter voltage	V_{CE0}	40	V
Emitter-base voltage	V_{EB0}	4	V
Collector current	I_C	25	mA
Peak collector current	I_{CM}	25	mA
Total power dissipation *	P_{tot}	250	mW
Storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$
Junction temperature	T_j	150	$^\circ\text{C}$
Operating ambient temperature	R_{amb}	-65 to +150	$^\circ\text{C}$
Thermal resistance from junction to ambient *	$R_{th\ j-a}$	500	K/W

* Transistor mounted on an FR4 printed-circuit board.

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$I_E = 0; V_{CB} = 20\text{ V}$			100	nA
Emitter cutoff current	I_{EBO}	$I_C = 0; V_{EB} = 4\text{ V}$			100	nA
DC current gain	h_{FE}	$I_C = 1\text{ mA}; V_{CE} = 10\text{ V}$	67		222	
Base to emitter voltage	V_{BE}	$I_C = 1\text{ mA}; V_{CE} = 10\text{ V}$	675	725	775	mV
Feedback capacitance	C_{re}	$I_C = 0; V_{CB} = 10\text{ V}; f = 1\text{ MHz}$		0.3		pF
Transition frequency	f_T	$I_C = 1\text{ mA}; V_{CE} = 10\text{ V}; f = 100\text{ MHz}$		380		MHz

■ Marking

Marking	NC
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