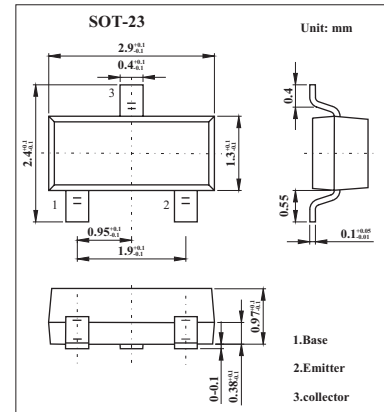


Medium Power Transistor

BCX41

■ Features

- SOT23 NPN silicon planar



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

Parameter	Symbol	Rating	Unit
Collector-emitter voltage	V_{CES}	125	V
Collector-emitter voltage	V_{CEO}	125	V
Emitter-base voltage	V_{EBO}	5	V
Continuous collector current	I_{CM}	1	A
Peak pulse current	I_C	800	mA
Base current	I_B	100	mA
Power dissipation	P_{tot}	330	mW
Operating and storage temperature range	T_j, T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-emitter cut-off current	I_{CES}	$V_{CE}=100\text{V}$ $V_{CE}=100\text{V}, T_{amb} = 150^\circ\text{C}$			100 10	nA μA
	I_{CEX}	$V_{CE}=100\text{V}, V_{BE}=0.2\text{V}, T_{amb} = 85^\circ\text{C}$ $V_{CE}=100\text{V}, V_{BE}=0.2\text{V}, T_{amb} = 125^\circ\text{C}$			10 75	μA μA
Emitter-base current	I_{EBO}	$V_{EB}=4\text{V}$			100	nA
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C=300\text{mA}, I_B=30\text{mA}$			0.9	V
Base-emitter saturation voltage *	$V_{BE(sat)}$	$I_C=300\text{mA}, I_B=30\text{mA}$			1.4	V
DC current gain *	h_{FE}	$I_C=100\mu\text{A}, V_{CE}=1\text{V}$ $I_C=100\text{mA}, V_{CE}=1\text{V}$ $I_C=200\text{mA}, V_{CE}=1\text{V}$	25 63 40			
Transitional frequency	f_T	$I_C=10\text{mA}, V_{CE}=5\text{V}, f=20\text{MHz}$		100		MHz
Output capacitance	C_{obo}	$V_{CB}=10\text{V}, f=1\text{MHz}, I_E=I_C=0$		12		pF

* Pulse test: $t_p = 300 \mu\text{s}; d \leq 0.02$.

■ Marking

Marking	EK
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