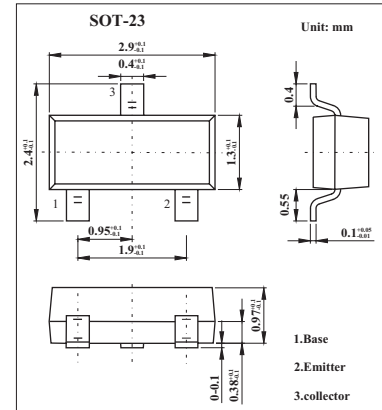


### NPN Silicon AF Transistors KC817(BC817)



#### ■ Features

- For general AF applications.
- High collector current.
- High current gain.
- Low collector-emitter saturation voltage.



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	50	V
Collector-emitter voltage	$V_{CEO}$	45	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current (DC)	$I_C$	800	mA
power dissipation	$P_D$	310	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-65 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-to-base breakdown voltage	$V_{CBO}$	$I_C = 10^{-4}\text{A}, V_{BE} = 0$	50			V
Collector-to-emitter breakdown voltage	$V_{CEO}$	$I_C = 10\text{mA}, I_B = 0$	45			V
Emitter-to-base breakdown voltage	$V_{EBO}$	$I_E = 10^{-4}\text{A}, I_C = 0$	5			V
Collector cutoff current	$I_{CES}$	$V_{CB} = 25\text{V}, V_{BE} = 0$			100	nA
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 4\text{V}, I_C = 0$			100	nA
DC current gain *	hFE	$I_C = 100\text{mA}, V_{CE} = 1\text{V}$	100		630	
		$I_C = 300\text{mA}, V_{CE} = 1\text{V}$	60			
Collector saturation voltage *	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$			0.7	V
Base emitter on voltage	$V_{BE(on)}$	$V_{CE} = 1\text{V}, I_C = 300\text{mA}$			1.2	V
Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, f = 1\text{MHz}$			12	pF
Transition frequency	$f_T$	$I_C = 10\text{mA}, V_{CE} = 5\text{V}, f = 50\text{MHz}$		100		MHz

\* Pulsed:  $PW \leq 350\ \mu\text{s}$ , duty cycle  $\leq 2\%$

#### ■ Marking

NO.	BC817-16	BC817-25	BC817-40
Marking	6A	6B	6C
hFE	100~250	160~400	250~630