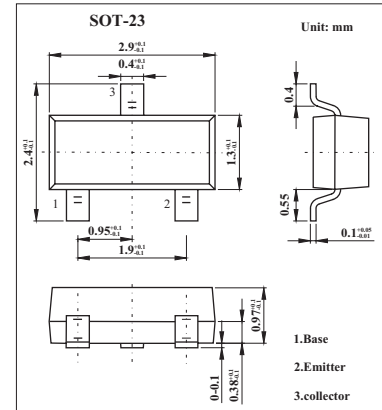


## NPN Silicon AF Transistors

### KC817A(BC817A)

#### ■ Features

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



#### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V <sub>CB0</sub>	50	V
Collector-emitter voltage	V <sub>CEO</sub>	45	V
Emitter-base voltage	V <sub>EBO</sub>	5	V
Collector current (DC)	I <sub>C</sub>	500	mA
Peak collector current	I <sub>CM</sub>	1	A
Base current	I <sub>B</sub>	100	mA
power dissipation	P <sub>D</sub>	310	mW
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-65 to +150	°C

#### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-to-base breakdown voltage	V <sub>CB0</sub>	I <sub>C</sub> = 10 μA, I <sub>E</sub> = 0	50			V
Collector-to-emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = 10 mA, I <sub>B</sub> = 0	45			V
Emitter-to-base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> = 10 μA, I <sub>C</sub> = 0	5			V
Collector cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> = 25 V, I <sub>E</sub> = 0			100	nA
		V <sub>CB</sub> = 25 V, I <sub>E</sub> = 0, T <sub>A</sub> = 150°C			50	μA
Emitter cutoff current	I <sub>EBO</sub>	V <sub>EB</sub> = 4 V, I <sub>C</sub> = 0			100	nA
DC current gain *	KC817A-16	I <sub>C</sub> = 100 mA, V <sub>CE</sub> = -1 V	100	160	250	
	KC817A-25		160	250	400	
	KC817A-40		250	350	630	
Collector saturation voltage *	V <sub>CE(sat)</sub>	I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA			0.7	V
Base to emitter voltage *	V <sub>BE(sat)</sub>	I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA			1.2	V
Collector-base capacitance	C <sub>cb</sub>	V <sub>CB</sub> = 10 V, f = 1 MHz		6		pF
Emitter-base capacitance	C <sub>eb</sub>	V <sub>EB</sub> = 0.5 V, f = 1 MHz		60		pF
Transition frequency	f <sub>T</sub>	I <sub>C</sub> = 50 mA, V <sub>CE</sub> = 5 V, f = 100 MHz		170		MHz

\* Pulsed: PW ≤ 350 μs, duty cycle ≤ 2%

#### ■ Marking

NO.	KC817A-16	KC817A-25	KC817A-40
Marking	6A	6B	6C