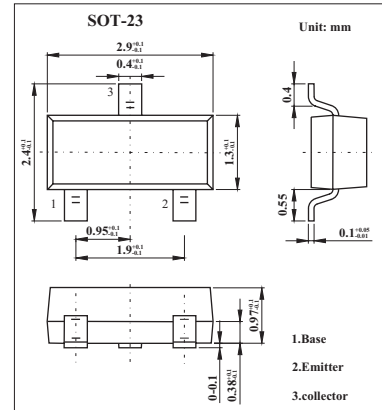


# KC807A(BC807A)

## ■ 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	Testconditons	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>CBO</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 *	KC807A-16	h <sub>FE</sub> I <sub>C</sub> = -100 mA, V <sub>CE</sub> = -1 V	100	160	250	
	KC807A-25		160	250	400	
	KC807A-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		10		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		200		MHz

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

## ■ Marking

NO.	KC807A-16	KC807A-25	KC807A-40
Marking	5A	5B	5C