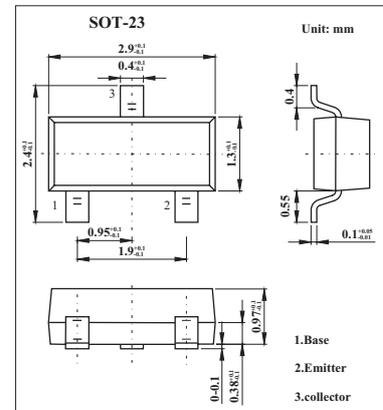


## PNP Silicon AF Transistors KC807A(BC807A)



### ■ 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	$V_{CB0}$	-50	V
Collector-emitter voltage	$V_{CE0}$	-45	V
Emitter-base voltage	$V_{EB0}$	-5	V
Collector current (DC)	$I_C$	-500	mA
Peak collector current	$I_{CM}$	-1	A
Base current	$I_B$	-100	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	$V_{CB0}$	$I_C = -10 \mu\text{A}$ , $I_E = 0$	-50			V	
Collector-to-emitter breakdown voltage	$V_{CE0}$	$I_C = -10 \text{mA}$ , $I_B = 0$	-45			V	
Emitter-to-base breakdown voltage	$V_{EB0}$	$I_E = -10 \mu\text{A}$ , $I_C = 0$	-5			V	
Collector cutoff current	$I_{CBO}$	$V_{CB} = -25 \text{V}$ , $I_E = 0$			-100	nA	
		$V_{CB} = -25 \text{V}$ , $I_E = 0$ , $T_A = 150^\circ\text{C}$			-50	$\mu\text{A}$	
Emitter cutoff current	$I_{EBO}$	$V_{EB} = -4 \text{V}$ , $I_C = 0$			-100	nA	
DC current gain *	KC807A-16	$h_{FE}$	$I_C = -100 \text{mA}$ , $V_{CE} = -1 \text{V}$	100	160	250	
	KC807A-25			160	250	400	
	KC807A-40			250	350	630	
Collector saturation voltage *	$V_{CE(sat)}$	$I_C = -500 \text{mA}$ , $I_B = -50 \text{mA}$			-0.7	V	
Base to emitter voltage *	$V_{BE(sat)}$	$I_C = -500 \text{mA}$ , $I_B = -50 \text{mA}$			-1.2	V	
Collector-base capacitance	$C_{Cb}$	$V_{CB} = -10 \text{V}$ , $f = 1 \text{MHz}$		10		pF	
Emitter-base capacitance	$C_{eb}$	$V_{EB} = -0.5 \text{V}$ , $f = 1 \text{MHz}$		60		pF	
Transition frequency	$f_T$	$I_C = -50 \text{mA}$ , $V_{CE} = -5 \text{V}$ , $f = 100 \text{MHz}$		200		MHz	

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

### ■ Marking

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