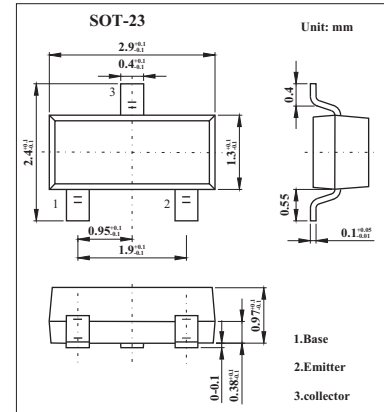


## NPN General Purpose Transistors

## KC817-25

## ■ Features

- For general AF applications.
- High collector current.
- High current gain.
- Low collector-emitter saturation voltage
- Complementary types: KC807 (PNP)

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	50	V
Collector-emitter voltage	$V_{CEO}$	45	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current (DC)	$I_C$	500	mA
Peak collector current	$I_{CM}$	1	A
power dissipation	$P_D$	300	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-to-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10 \mu\text{A}, I_E = 0$	50			V
Collector-to-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10 \text{mA}, I_B = 0$	45			V
Emitter-to-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10 \mu\text{A}, I_C = 0$	5			V
Collector cutoff current	$I_{CBO}$	$V_{CB} = 45 \text{V}, I_E = 0$			100	nA
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 5 \text{V}, I_C = 0$			100	nA
DC current gain *	$h_{FE}$	$V_{CE} = 1 \text{V}, I_C = 100 \text{mA}$	160		400	
		$V_{CE} = 1 \text{V}, I_C = 500 \text{mA}$	40			
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	$C_{ob}$	$V_{CB} = 10 \text{V}, f = 1 \text{MHz}$		10		pF
Transition frequency	$f_T$	$I_C = 10 \text{mA}, V_{CE} = 5 \text{V}, f = 100 \text{MHz}$	100			MHz

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

## ■ Marking

Marking	6BW
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