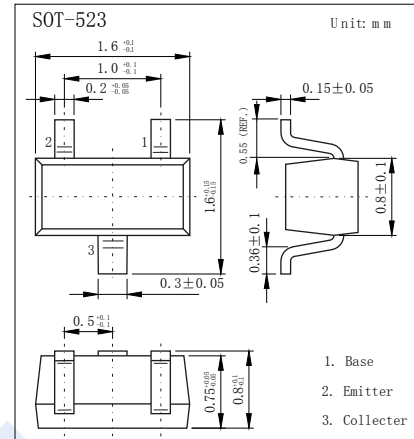


## PNP Transistors BC857T (KC857T)

### ■ Features

- Ideally suited for automatic insertion
- For Switching and AF Amplifier Applications



### ■ 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	
Emitter - Base Voltage	$V_{EB0}$	-6	
Collector Current - Continuous	$I_C$	-0.1	A
Collector Power Dissipation	$P_C$	150	mW
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature range	$T_{stg}$	-55 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_C = -100 \mu\text{A}, I_E = 0$	-50			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = -10 \text{mA}, I_B = 0$	-45			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = -100 \mu\text{A}, I_C = 0$	-6			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = -50 \text{V}, I_E = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -6 \text{V}, I_C = 0$			-0.1	$\mu\text{A}$
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10 \text{mA}, I_B = -0.5 \text{mA}$			-0.3	V
		$I_C = -100 \text{mA}, I_B = -5 \text{mA}$			-0.65	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10 \text{mA}, I_B = -0.5 \text{mA}$		-0.7		
		$I_C = -100 \text{mA}, I_B = -5 \text{mA}$		-0.9		
Base-emitter voltage	$V_{BE(on)}$	$V_{CE} = -5 \text{V}, I_C = -2 \text{mA}$	-0.6		-0.75	
		$V_{CE} = -5 \text{V}, I_C = -10 \text{mA}$			-0.82	
DC current gain	$h_{FE}$	$V_{CE} = -5 \text{V}, I_C = -2 \text{mA}$	125		800	
Noise figure	NF	$V_{CE} = -5 \text{V}, f = 1 \text{MHz}, I_C = 0.2 \text{mA}$ $R_s = 2 \text{k}\Omega, BW = 200 \text{Hz}$			10	dB
Collector output capacitance	$C_{ob}$	$V_{CB} = -10 \text{V}, f = 1 \text{MHz}$			4.5	pF
Transition frequency	$f_T$	$V_{CE} = -5 \text{V}, I_C = -10 \text{mA}, f = 100 \text{MHz}$	100			MHz

### ■ Classification of $h_{FE}$

Type	BC857AT	BC857BT	BC857CT
Range	125-250	220-475	420-800
Marking	3E	3F	3G