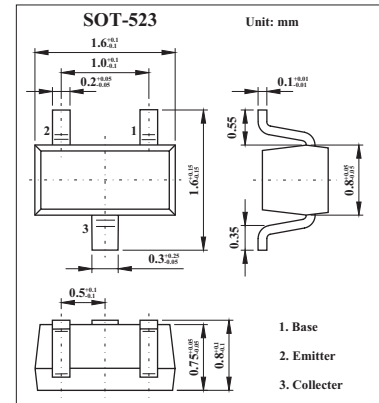


## PNP General Purpose Transistors

### KC857T(BC857T)

#### ■ Features

- Low current (max. 100 mA)
- Low voltage (max. 45 V).



#### ■ 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)	$I_C$	-100	mA
Peak collector current	$I_{CM}$	-200	mA
power dissipation	$P_D$	150	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 cut-off current	$I_{CBO}$	$I_E = 0; V_{CB} = -30\text{ V}$			-15	nA
		$I_E = 0; V_{CB} = -30\text{ V}; T_j = 150^\circ\text{C}$			-5	$\mu\text{A}$
emitter cut-off current	$I_{EBO}$	$I_C = 0; V_{EB} = -5\text{ V}$			-100	nA
DC current gain	KC857AT	$I_C = -2\text{ mA}; V_{CE} = -5\text{ V}$	125		250	
	KC857BT		220		475	
	KC857CT		420		800	
collector-emitter saturation voltage	$V_{CEsat}$	$I_C = -10\text{ mA}; I_B = -0.5\text{ mA}$			-200	mV
		$I_C = -100\text{ mA}; I_B = -5\text{ mA}; *$			-400	mV
base-emitter voltage	$V_{BE}$	$I_C = -2\text{ mA}; V_{CE} = -5\text{ V}$	-600		-750	mV
		$I_C = -10\text{ mA}; V_{CE} = -5\text{ V}$			-820	mV
collector capacitance	$C_c$	$I_E = I_C = 0; V_{CB} = -10\text{ V}; f = 1\text{ MHz}$			2.5	pF
emitter capacitance	$C_e$	$I_C = I_C = 0; V_{EB} = -500\text{ mV}; f = 1\text{ MHz}$		10		pF
noise figure	F	$I_C = -200\ \mu\text{A}; V_{CE} = -5\text{ V}; R_s = 2\text{ k}\Omega; f = 1\text{ kHz}; B = 200\text{ Hz}$			10	dB
transition frequency	$f_T$	$I_C = -10\text{ mA}; V_{CE} = -5\text{ V}; f = 100\text{ MHz}$	100			MHz

\* Pulse test:  $t_p \leq 300\text{ ms}; \delta \leq 0.02$ .

#### ■ Marking

NO.	KC857AT	KC857BT	KC857CT
Marking	3E	3F	3G