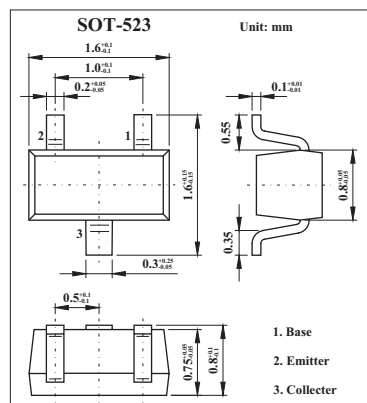


KC847T(BC847T)

■ Features

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



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	50	V
Collector-emitter voltage	V _{CEO}	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	°C
Storage temperature	T _{stg}	-65 to +150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
collector cut-off current	I _{CBO}	I _E = 0; V _{CB} = 30 V			15	nA
		I _E = 0; V _{CB} = 30 V; T _j = 150°C			5	μA
emitter cut-off current	I _{EBO}	I _C = 0; V _{EB} = 5 V			100	nA
DC current gain	KC847AT	I _C = 2 mA; V _{CE} = 5 V	110		220	
	KC847BT		200		450	
	KC847CT		420		800	
collector-emitter saturation voltage	V _{CEsat}	I _C = 10 mA; I _B = 0.5 mA			200	mV
		I _C = 100 mA; I _B = 5 mA; *			400	mV
base-emitter voltage	V _{BE}	I _C = 2 mA; V _{CE} = 5 V	580		700	mV
		I _C = 10 mA; V _{CE} = 5 V			770	mV
collector capacitance	C _c	I _E = I _E = 0; V _{CB} = 10 V; f = 1 MHz			1.5	pF
emitter capacitance	C _e	I _C = I _C = 0; V _{EB} = 500 mV; f = 1 MHz		11		pF
noise figure	F	I _C = 200 μA; V _{CE} = 5 V; R _s = 2 kΩ; f = 1 kHz; B = 200 Hz			10	dB
transition frequency	f _T	I _C = 10 mA; V _{CE} = 5 V; f = 100 MHz	100			MHz

* Pulse test: t_p ≤ 300 ms; δ ≤ 0.02.

■ Marking

NO.	KC847AT	KC847BT	KC847CT
Marking	1E	1F	1G