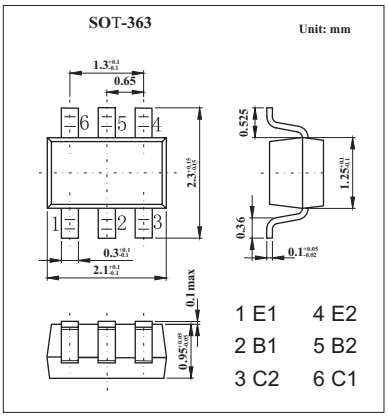
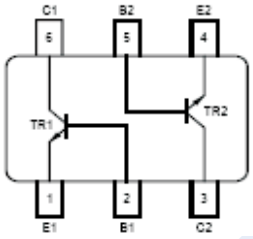
NPN Silicon AF Transistors Array

KC846S(BC846S)



■ Features

- For AF input stage and driver applications
- High current gain.
- Low collector-emitter saturation voltage.



■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	80	V
Collector-emitter voltage	V_{CEO}	65	V
Emitter-base voltage	V_{EBO}	6	V
Collector current (DC)	I_C	100	mA
Peak collector current	I_{CM}	200	mA
power dissipation	P_D	250	mW
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-65 to +150	℃

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■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C = 10 μA, I_E = 0	80			V
Collector-emitter breakdown voltage	V_{CEO}	I_C = 10 mA, I_B = 0	65			V
Emitter-base breakdown voltage	V_{EBO}	I_E = 10 μA, I_C = 0	6			V
Collector cutoff current	I_{CBO}	V_{CB} = 30 V, I_E = 0			15	nA
		V_{CB} = 30 V, I_E = 0 , T_A = 150 ℃			5	μA
DC current gain *	h_{FE}	I_C = 10 μA, V_{CE} = 5 V		250		
		I_C = 2 mA, V_{CE} = 5 V	200	290	450	
Collector-emitter saturation voltage*	$V_{CE(sat)}$	I_C = 10 mA, I_B = 0.5 mA		90	250	mV
		I_C = 100 mA, I_B = 5 mA		200	650	
Base-emitter saturation voltage*	$V_{BE(sat)}$	I_C = 10 mA, I_B = 0.5 mA		700		mV
		I_C = 100 mA, I_B = 5 mA		900		
Base-emitter voltage*	$V_{BE(ON)}$	I_C = 2 mA, V_{CE} = 5 V	580	660	700	mV
		I_C = 10 mA, V_{CE} = 5 V			770	
Collector-base capacitance	C_{cb}	V_{CB} = 10 V, f = 1 MHz		2		pF
Emitter-base capacitance	C_{eb}	V_{EB} = 0.5 V, f = 1 MHz		10		pF
Noise figure	F	I_C = 200 μA, V_{CE} = 5 V, R_S = 2 kΩ ,f = 1 kHz, △f = 200 Hz			10	dB
Transition frequency	f_T	I_C = 20 mA, V_{CE} = 5 V, f = 100 MHz		250		MHz

* Pulse test: t < 300 μs; D < 2%

■ Marking

Marking	1D