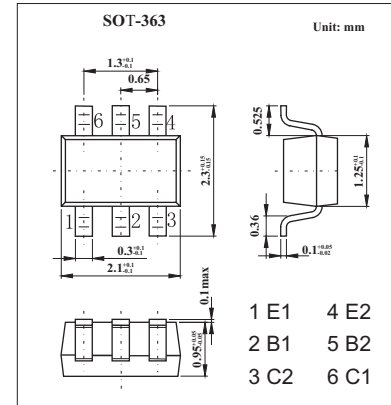
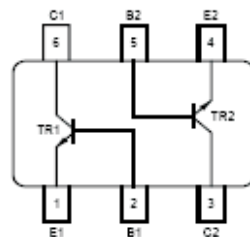


NPN Silicon AF Transistors Array

KC846S(BC846S)

■ Features

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



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CB0}	80	V
Collector-emitter voltage	V_{CE0}	65	V
Emitter-base voltage	V_{EB0}	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	$^\circ\text{C}$
Storage temperature	T_{stg}	-65 to +150	$^\circ\text{C}$

KC846S(BC846S)

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	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 °C			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, Δf = 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
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