

XN01558

Silicon NPN epitaxial planar transistor

For low-frequency amplification

■ Features

- Two elements incorporated into one package (Emitter-coupled transistors)
- Reduction of the mounting area and assembly cost by one half

■ Basic Part Number of Element

- 2SD2623 × 2 elements

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

	Parameter	Symbol	Rating	Unit
Rating of element	Collector to base voltage	V_{CBO}	25	V
	Collector to emitter voltage	V_{CEO}	20	V
	Emitter to base voltage	V_{EBO}	12	V
	Collector current	I_C	0.5	A
	Peak collector current	I_{CP}	1	A
Total	Total power dissipation	P_T	300	mW
	Junction temperature	T_j	150	$^\circ\text{C}$
	Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

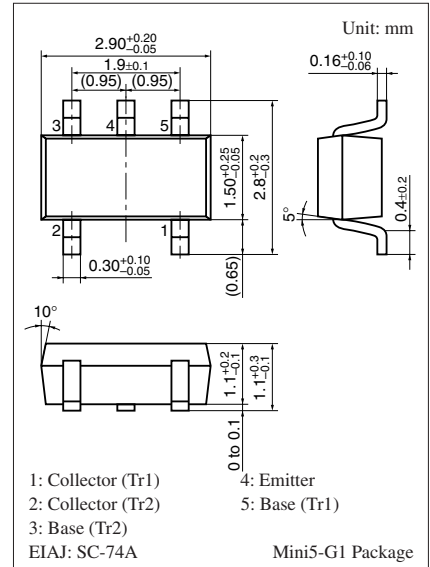
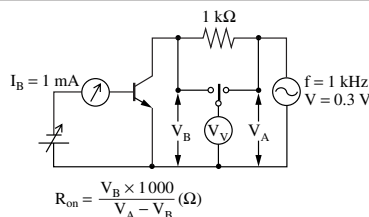
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector to base voltage	V_{CBO}	$I_C = 10 \mu\text{A}, I_E = 0$	25			V
Collector to emitter voltage	V_{CEO}	$I_C = 1 \text{ mA}, I_B = 0$	20			V
Emitter to base voltage	V_{EBO}	$I_C = 10 \mu\text{A}, I_C = 0$	12			V
Collector cutoff current	I_{CBO}	$V_{CB} = 25 \text{ V}, I_E = 0$			100	nA
Forward current transfer ratio *1	h_{FE}	$V_{CE} = 2 \text{ V}, I_C = 0.5 \text{ A}$	200		800	
h_{FE} ratio *1, 2	$h_{FE(\text{Small/Large})}$	$V_{CE} = 2 \text{ V}, I_C = 0.5 \text{ A}$	0.5	0.99		
Collector to emitter saturation voltage *1	$V_{CE(\text{sat})}$	$I_C = 0.5 \text{ A}, I_B = 20 \text{ mA}$		0.14	0.4	V
Base to emitter saturation voltage *1	$V_{BE(\text{sat})}$	$I_C = 0.5 \text{ A}, I_B = 50 \text{ mA}$			1.2	V
Gain bandwidth product	f_T	$V_{CB} = 10 \text{ V}, I_E = -50 \text{ mA}, f = 200 \text{ MHz}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		10		pF
On resistance *3	R_{on}			1.0		Ω

Note) *1: Pulse measurement

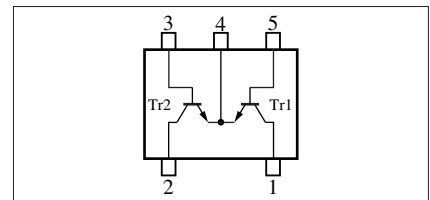
*2: Ratio between one and another device

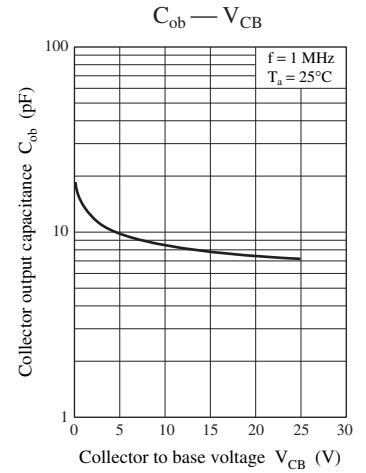
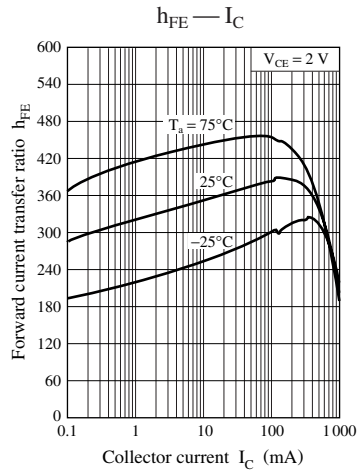
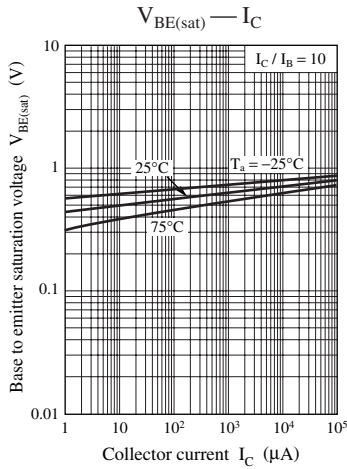
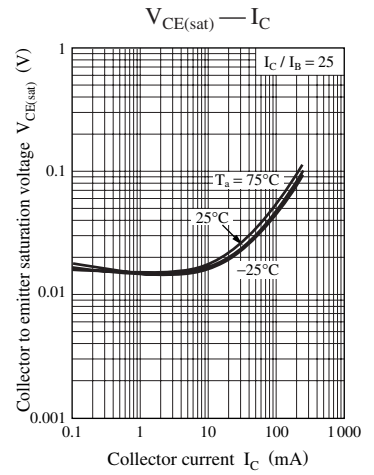
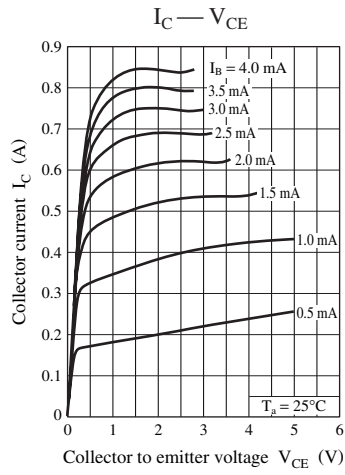
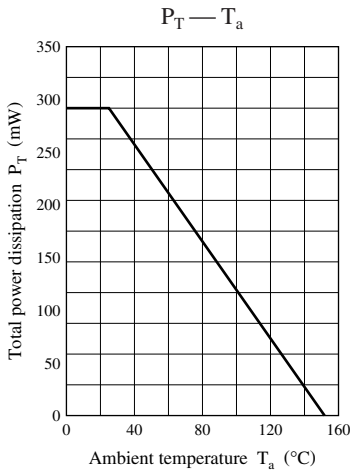
*3: R_{on} start resistance test circuit



Marking Symbol: 4Z

Internal Connection





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