

XN01558

Silicon NPN epitaxial planar type

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

- 2SD2623 × 2

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	25	V
Collector-emitter voltage (Base open)	V_{CEO}	20	V
Emitter-base voltage (Collector open)	V_{EBO}	12	V
Collector current	I_C	0.5	A
Peak collector current	I_{CP}	1	A
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 $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

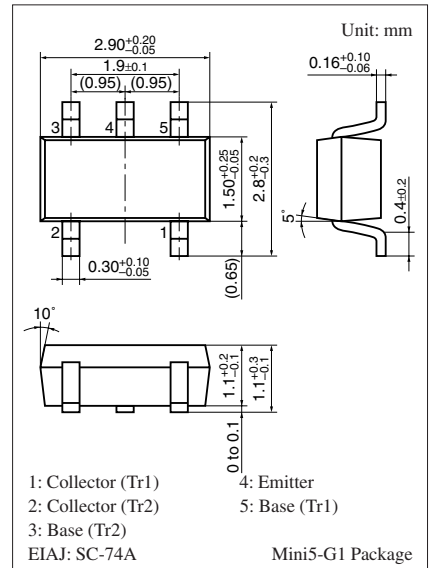
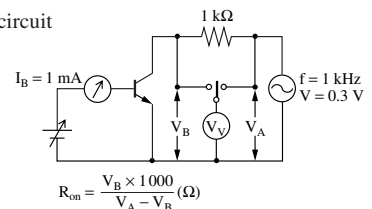
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = 10 \mu\text{A}, I_E = 0$	25			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 1 \text{ mA}, I_B = 0$	20			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 10 \mu\text{A}, I_C = 0$	12			V
Collector-base cutoff current (Emitter open)	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	$h_{FE(\text{Small})}$ $/h_{FE(\text{Large})}$	$V_{CE} = 2 \text{ V}, I_C = 0.5 \text{ A}$	0.50	0.99		—
Collector-emitter saturation voltage *1	$V_{CE(\text{sat})}$	$I_C = 0.5 \text{ A}, I_B = 20 \text{ mA}$		0.14	0.40	V
Base-emitter saturation voltage *1	$V_{BE(\text{sat})}$	$I_C = 0.5 \text{ A}, I_B = 50 \text{ mA}$			1.2	V
Transition frequency	f_T	$V_{CB} = 10 \text{ V}, I_E = -50 \text{ mA}, f = 200 \text{ MHz}$		200		MHz
Collector output capacitance (Common base, input open circuited)	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. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

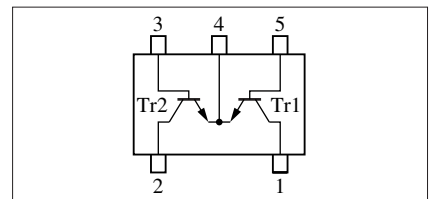
*2: Ratio between one and another device

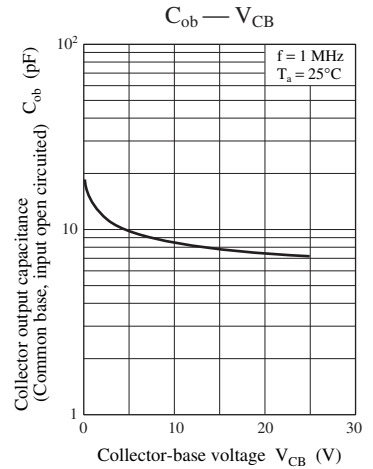
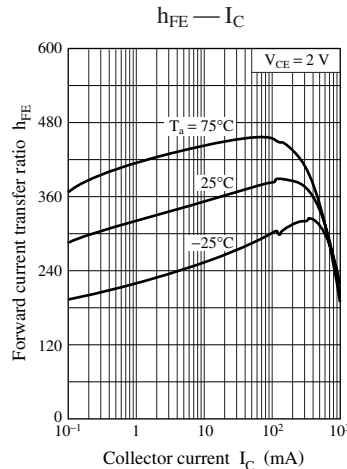
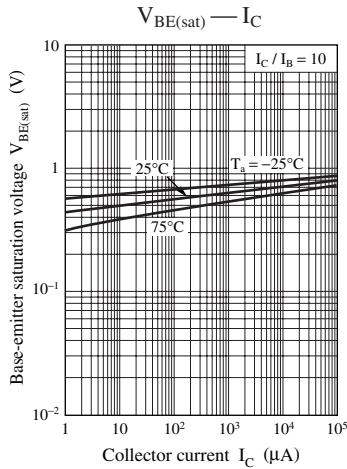
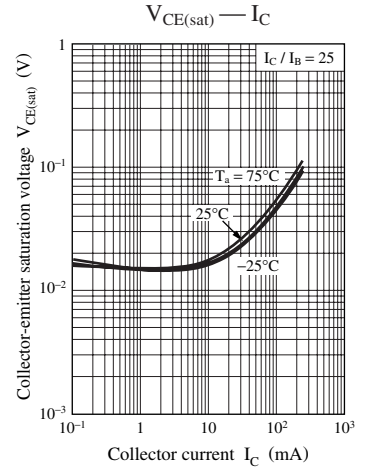
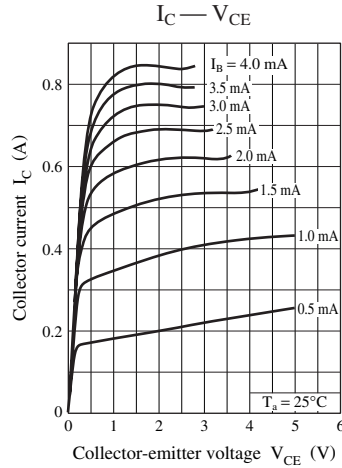
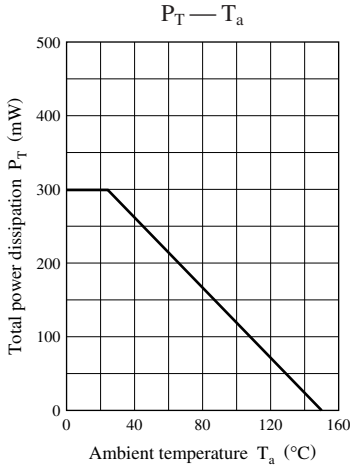
*3: R_{on} test circuit



Marking Symbol: 4Z

Internal Connection





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