

XN04504 (XN4504)

Silicon NPN epitaxial planar type

For amplification of low-frequency output

■ Features

- Two elements incorporated into one package
- Reduction of the mounting area and assembly cost by one half

■ Basic Part Number

- 2SD1328 × 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	$^\circ\text{C}$

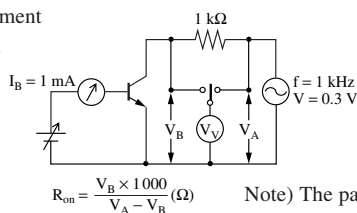
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_{\text{C}} = 10 \mu\text{A}, I_{\text{E}} = 0$	25			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_{\text{C}} = 1 \text{ mA}, I_{\text{B}} = 0$	20			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_{\text{E}} = 10 \mu\text{A}, I_{\text{C}} = 0$	12			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{\text{CB}} = 25 \text{ V}, I_{\text{E}} = 0$			100	nA
Forward current transfer ratio *1	h_{FE1}	$V_{\text{CE}} = 2 \text{ V}, I_{\text{C}} = 0.5 \text{ A}$	200		800	—
	h_{FE2}	$V_{\text{CE}} = 2 \text{ V}, I_{\text{C}} = 1 \text{ A}$	60			
Collector-emitter saturation voltage *1	$V_{\text{CE(sat)}}$	$I_{\text{C}} = 0.5 \text{ A}, I_{\text{B}} = 20 \text{ mA}$		0.13	0.40	V
Base-emitter saturation voltage *1	$V_{\text{BE(sat)}}$	$I_{\text{C}} = 0.5 \text{ A}, I_{\text{B}} = 50 \text{ mA}$			1.2	V
Transition frequency	f_{T}	$V_{\text{CB}} = 10 \text{ V}, I_{\text{E}} = -50 \text{ mA}, f = 200 \text{ MHz}$		200		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{\text{CB}} = 10 \text{ V}, I_{\text{E}} = 0, f = 1 \text{ MHz}$		10		pF
ON resistance *2	R_{on}			1.0		Ω

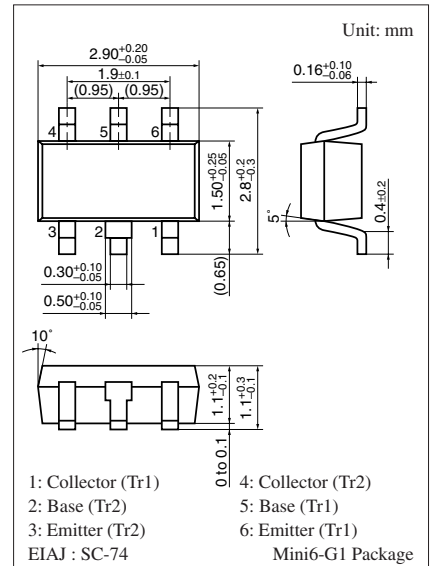
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

*2: R_{on} test circuit

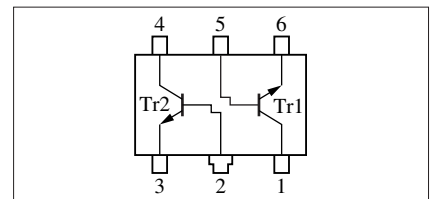


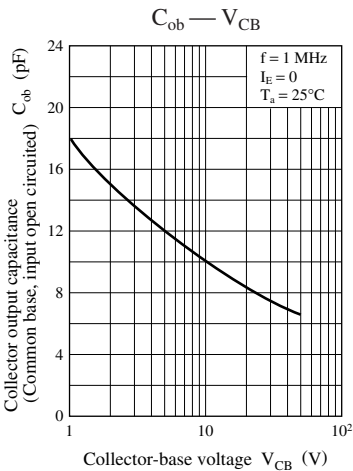
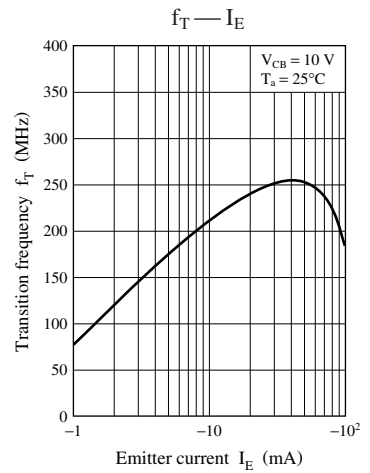
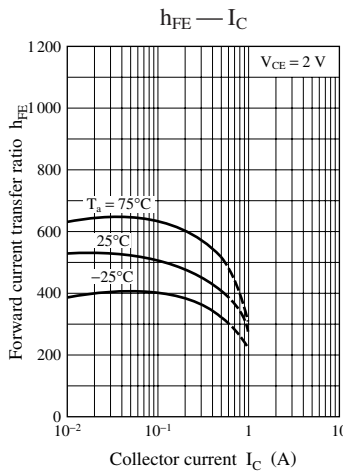
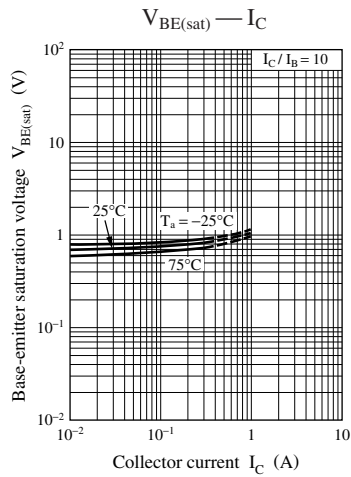
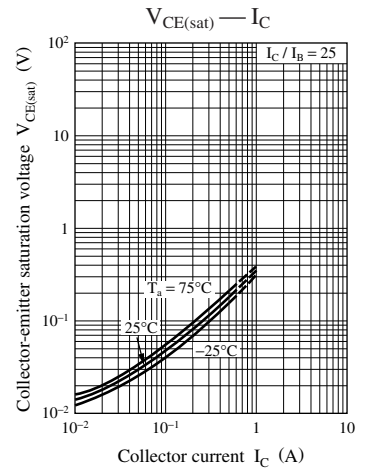
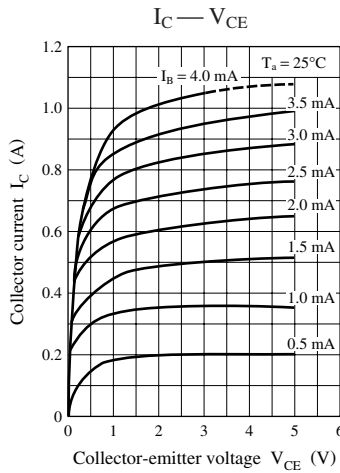
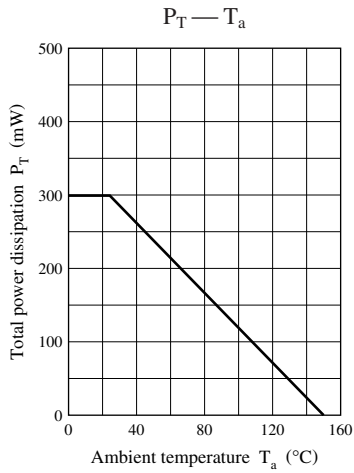
Note) The part number in the parenthesis shows conventional part number.



Marking Symbol: 5X

Internal Connection





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