

XN01504 (XN1504)

Silicon NPN epitaxial planar type

For amplification of low-frequency output

■ Features

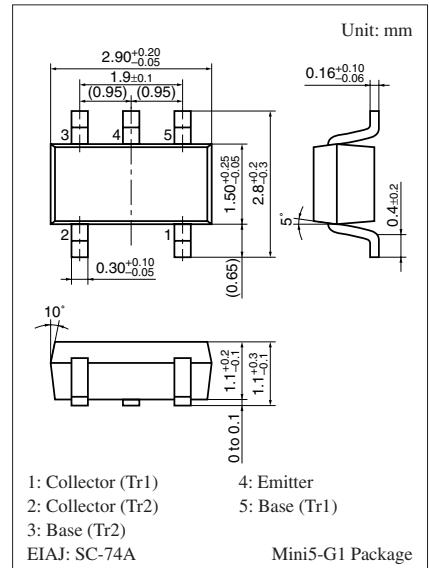
- Two elements incorporated into one package (Emitter-coupled transistors)
- Reduction of the mounting area and assembly cost by one half

■ Basic Part Number

- 2SD1915F × 2

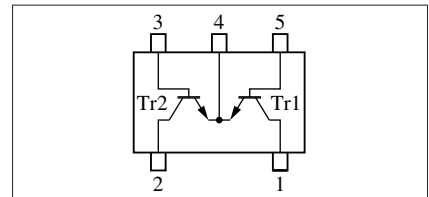
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	50	V
Collector-emitter voltage (Base open)	V_{CEO}	20	V
Emitter-base voltage (Collector open)	V_{EBO}	25	V
Collector current	I_{C}	300	mA
Peak collector current	I_{CP}	500	mA
Total power dissipation	P_{T}	300	mW
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



Marking Symbol: 5S

Internal Connection



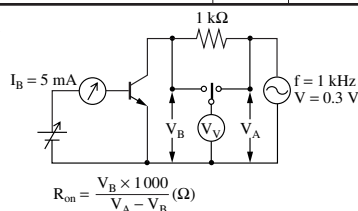
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_{\text{C}} = 1 \text{ mA}, I_{\text{B}} = 0$	20			V
Base-emitter voltage	V_{BE}	$V_{\text{CE}} = 2 \text{ V}, I_{\text{C}} = 4 \text{ mA}$		0.6		V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{\text{CB}} = 50 \text{ V}, I_{\text{E}} = 0$			0.1	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{\text{EB}} = 25 \text{ V}, I_{\text{C}} = 0$			0.1	μA
Forward current transfer ratio	h_{FE}	$V_{\text{CE}} = 2 \text{ V}, I_{\text{C}} = 4 \text{ mA}$	500		2500	—
h_{FE} ratio *1	$h_{\text{FE}}(\text{Small})$ $/\text{Large}$	$V_{\text{CE}} = 2 \text{ V}, I_{\text{C}} = 4 \text{ mA}$	0.50	0.99		—
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = 30 \text{ mA}, I_{\text{B}} = 3 \text{ mA}$			0.1	V
Transition frequency	f_{T}	$V_{\text{CB}} = 6 \text{ V}, I_{\text{E}} = -4 \text{ mA}, f = 200 \text{ MHz}$		80		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{\text{CB}} = 10 \text{ V}, I_{\text{E}} = 0, f = 1 \text{ MHz}$			7	pF
ON resistance *2	R_{on}			1.0		Ω

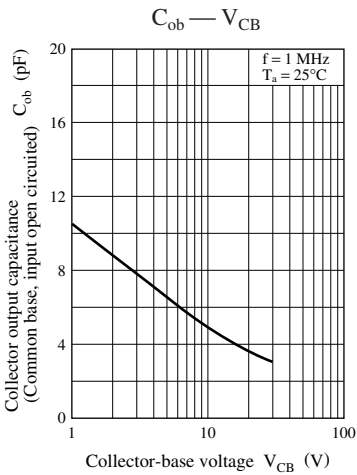
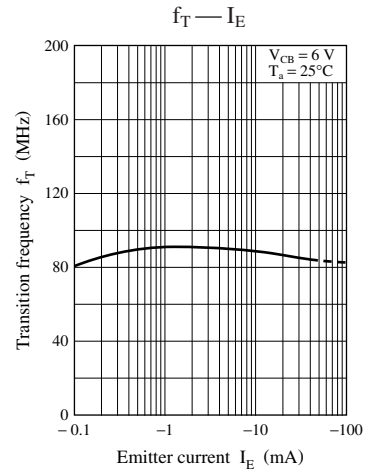
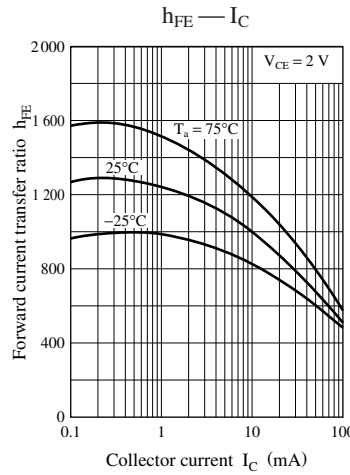
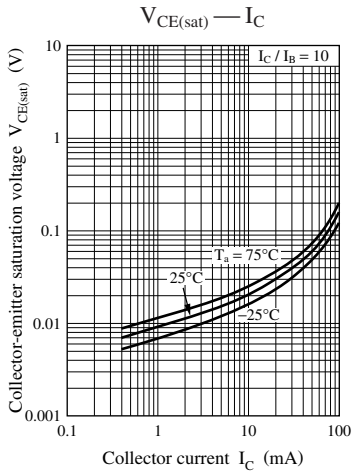
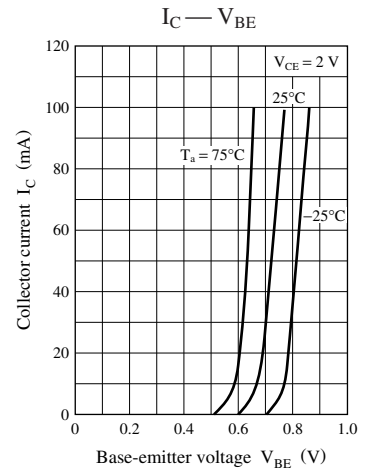
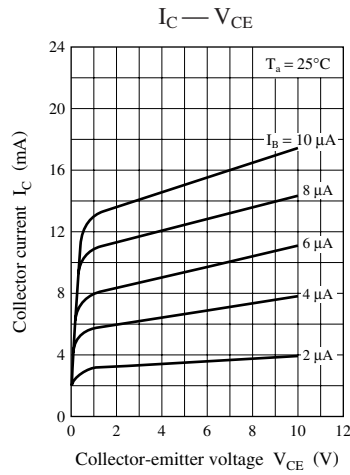
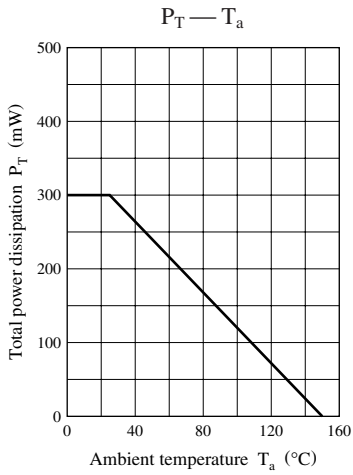
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Ratio between 2 elements

*2: R_{on} start resistance test circuit



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



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