

XP01504 (XP1504)

Silicon NPN epitaxial planar type

For amplification of low-frequency output

■ Features

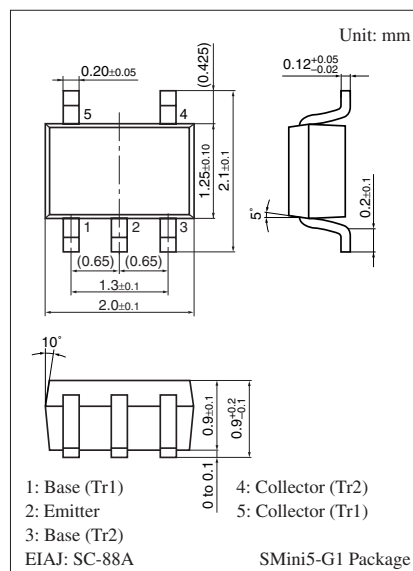
- Two elements incorporated into one package (Emitter-coupled transistors)
- Reduction of the mounting area and assembly cost by one half

■ Basic Part Number

- 2SD1915F × 2

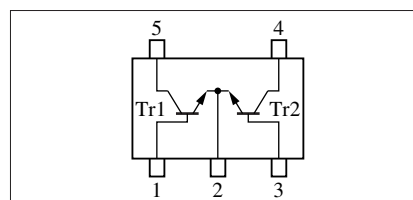
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



Marking Symbol: 5S

Internal Connection

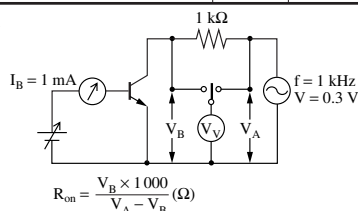


■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

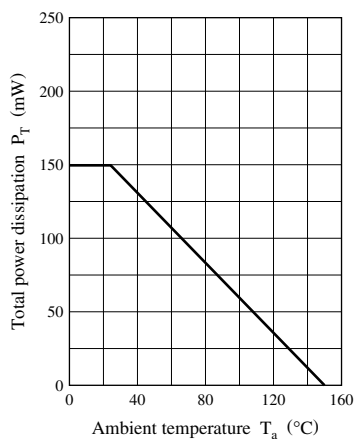
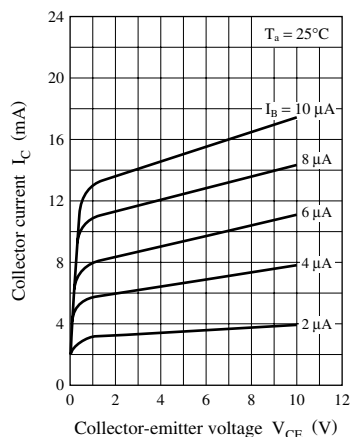
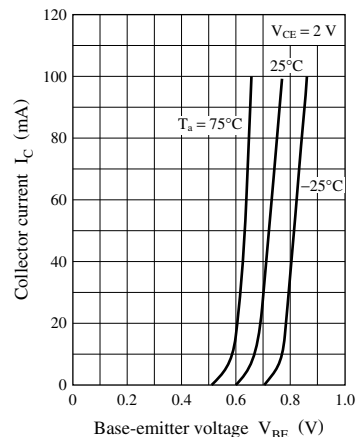
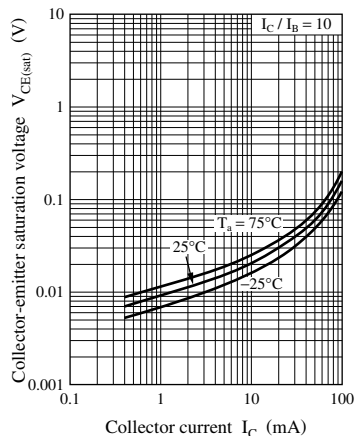
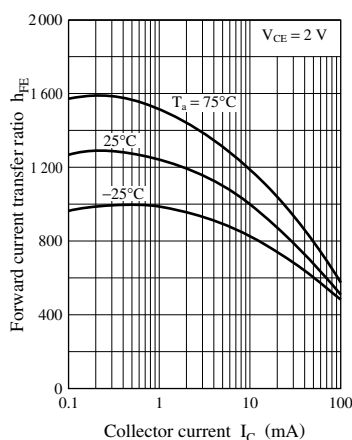
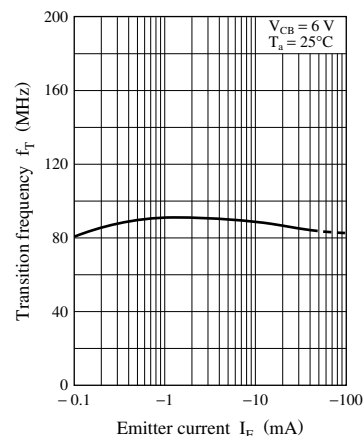
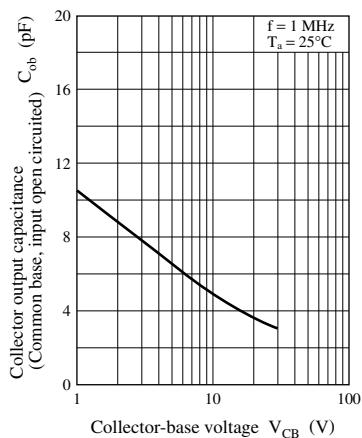
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 1 \text{ mA}, I_B = 0$	20			V
Base-emitter voltage	V_{BE}	$V_{CE} = 2 \text{ V}, I_C = 4 \text{ mA}$		0.6		V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 50 \text{ V}, I_E = 0$			0.1	μA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

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

2. *: R_{on} start resistance test circuit



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

$P_T - T_a$  $I_C - V_{CE}$  $I_C - V_{BE}$  $V_{CE(sat)} - I_C$  $h_{FE} - I_C$  $f_T - I_E$  $C_{ob} - V_{CB}$ 

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