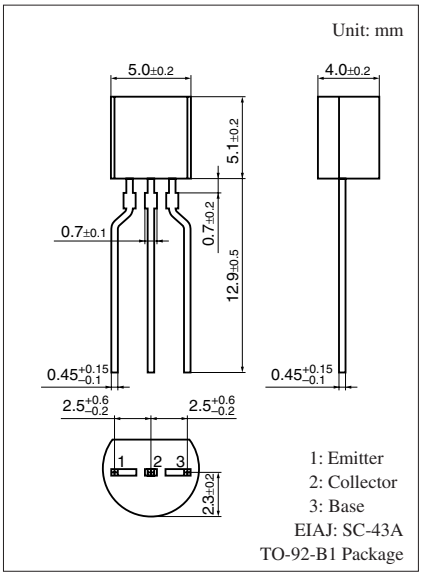
2SB0774 (2SB774)

Silicon PNP epitaxial planar type

For low-frequency amplification



■ Features

- High emitter-base voltage (Collector open) V_{EBO}
- Protective diodes and resistances between emitter and base can be omitted.

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	−30	V
Collector-emitter voltage (Base open)	V_{CEO}	−25	V
Emitter-base voltage (Collector open)	V_{EBO}	−15	V
Collector current	I_C	−100	mA
Peak collector current	I_{CP}	−200	mA
Collector power dissipation	P_C	400	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10$ μA, $I_E = 0$	−30			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -2$ mA, $I_B = 0$	−25			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10$ μA, $I_C = 0$	−15			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -10$ V, $I_E = 0$			−1	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -20$ V, $I_B = 0$			−100	μA
Forward current transfer ratio	h_{FE1} *	$V_{CE} = -10$ V, $I_C = -2$ mA	210		460	—
	h_{FE2}	$V_{CE} = -2$ V, $I_C = -100$ mA	90			—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100$ mA, $I_B = -10$ mA			− 0.5	V
Transition frequency	f_T	$V_{CB} = -10$ V, $I_E = 2$ mA, f = 200 MHz		150		MHz
Collector output capacitance (Common-emitter reverse transfer)	C_{ob}	$V_{CB} = -10$ V, $I_E = 0$, f = 1 MHz		4		pF

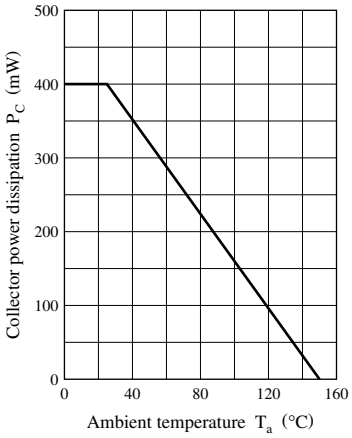
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Rank classification

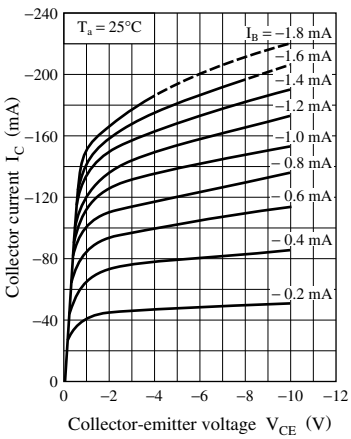
Rank	R	S
h_{FE1}	210 to 340	290 to 460

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

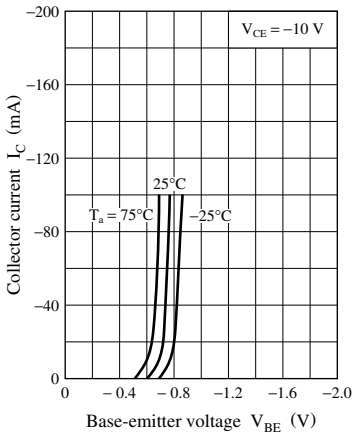
P_C — T_a



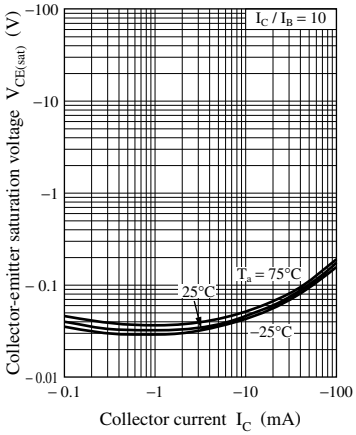
I_C — V_{CE}



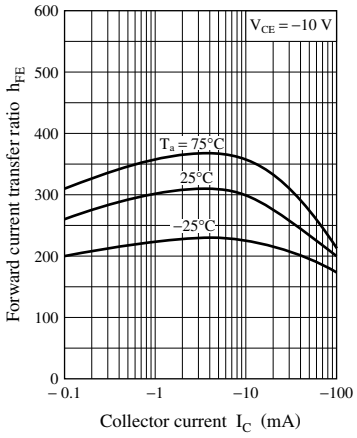
I_C — V_{BE}



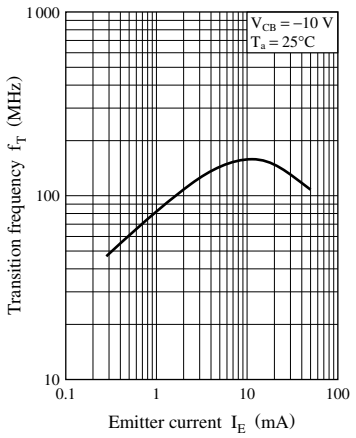
$V_{CE(sat)}$ — I_C



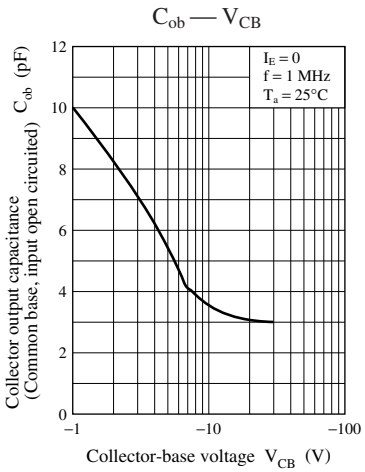
h_{FE} — I_C



f_T — I_E



C_{ob} — V_{CB}



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