

2SB0779 (2SB779)

Silicon PNP epitaxial planar type

For low-frequency output amplification

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Satisfactory linearity of forward current transfer ratio h_{FE} at the low collector voltage
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

■ 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}	-7	V
Collector current	I_C	-500	mA
Peak collector current	I_{CP}	-1	A
Collector power dissipation	P_C	200	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}	$I_E = -10\ \mu\text{A}$, $I_C = 0$	-7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -25\ \text{V}$, $I_E = 0$			-100	nA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = -20\ \text{V}$, $I_B = 0$			-1	μA
Forward current transfer ratio *1	h_{FE1} *2	$V_{CE} = -2\ \text{V}$, $I_C = -500\ \text{mA}$	90		220	—
	h_{FE2}	$V_{CE} = -2\ \text{V}$, $I_C = -1\ \text{A}$	25			—
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = -500\ \text{mA}$, $I_B = -50\ \text{mA}$		-0.2	-0.4	V
Base-emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = -500\ \text{mA}$, $I_B = -50\ \text{mA}$			-1.2	V
Transition frequency	f_T	$V_{CB} = -10\ \text{V}$, $I_E = 50\ \text{mA}$, $f = 200\ \text{MHz}$		150		MHz
Collector output capacitance (Common-emitter reverse transfer)	C_{ob}	$V_{CB} = -10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$		15		pF

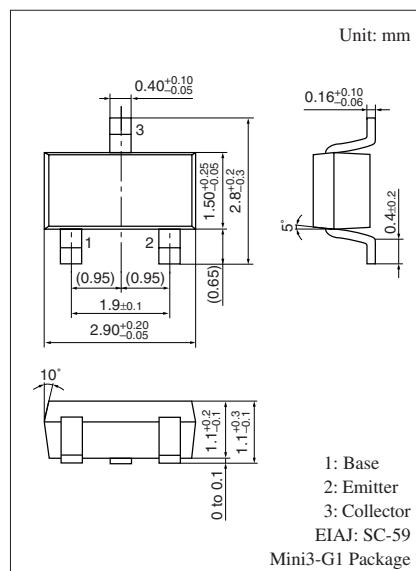
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *1: Pulse measurement

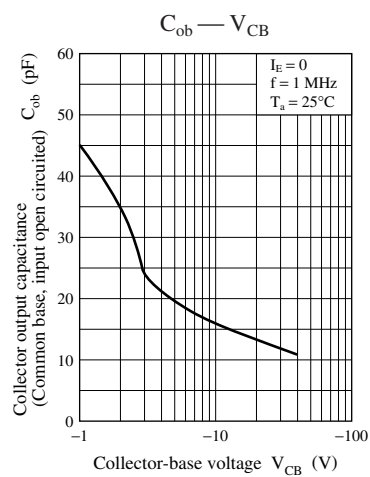
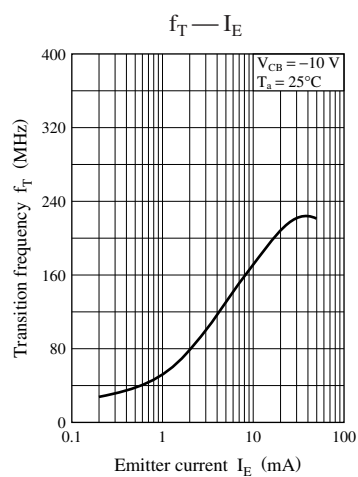
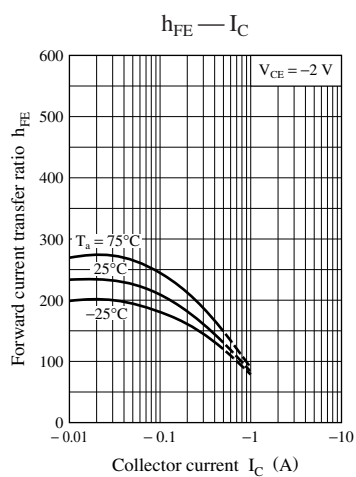
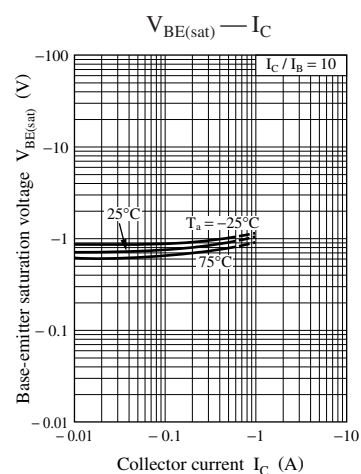
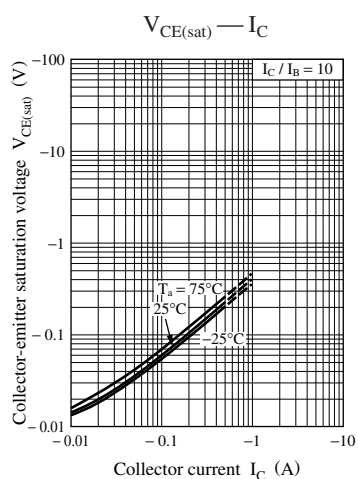
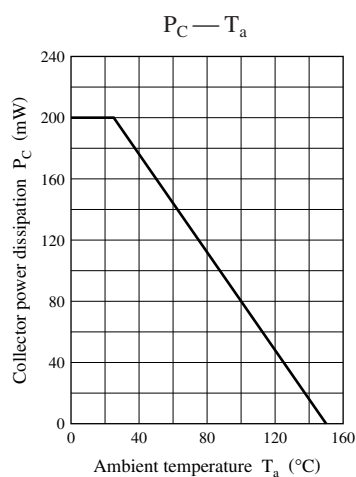
*2: Rank classification

Rank	Q	R
h_{FE1}	90 to 155	130 to 220

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



Marking Symbol: 1A



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