

2SA0719, 2SA0720 (2SA719, 2SA720)

Silicon PNP epitaxial planar type

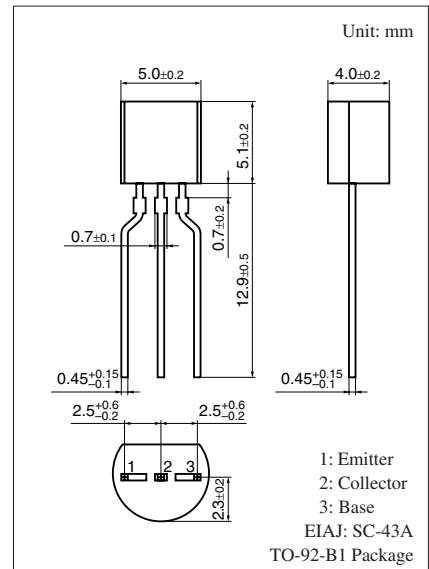
For low-frequency power amplification and driver amplification
Complementary to 2SC1317, 2SC1318

■ Features

- Complementary pair with 2SC1317 and 2SC1318

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

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	2SA0719	V_{CBO}	-30	V
	2SA0720		-60	
Collector-emitter voltage (Base open)	2SA0719	V_{CEO}	-25	V
	2SA0720		-50	
Emitter-base voltage (Collector open)	V_{EBO}	-5	V	
Collector current	I_{C}	-500	mA	
Peak collector current	I_{CP}	-1	A	
Collector power dissipation	P_{C}	625	mW	
Junction temperature	T_{j}	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$	



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

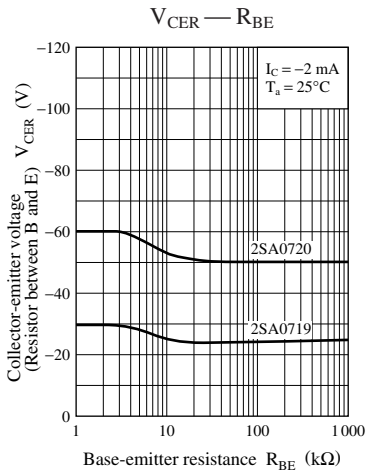
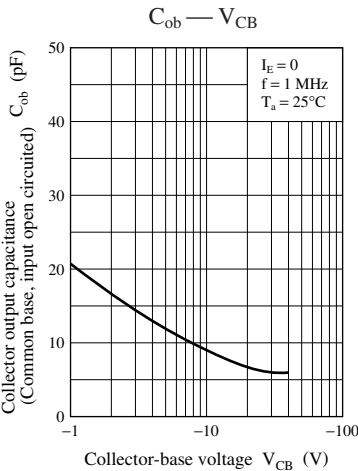
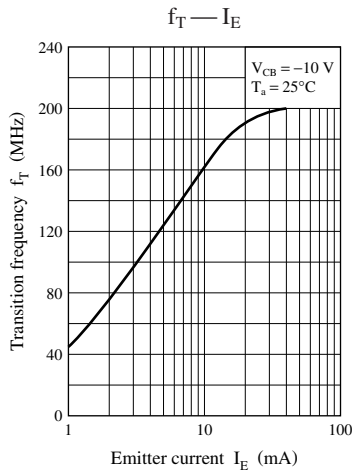
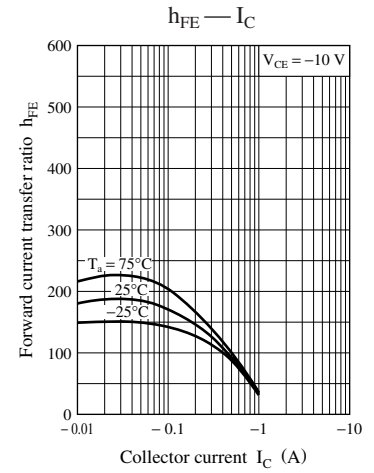
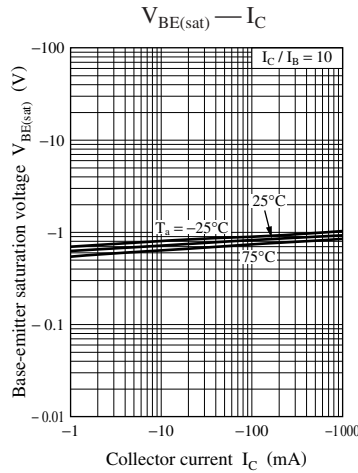
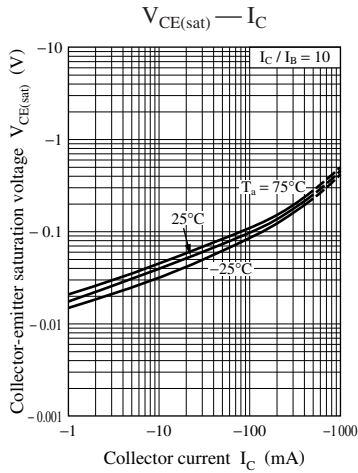
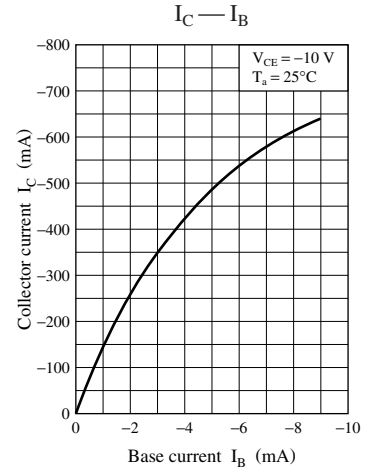
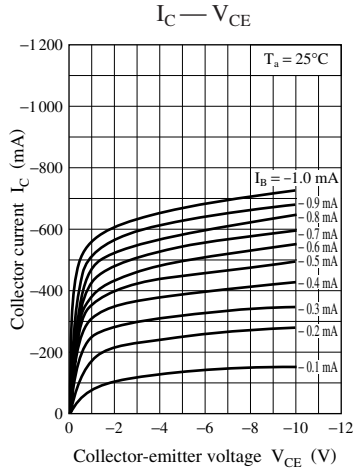
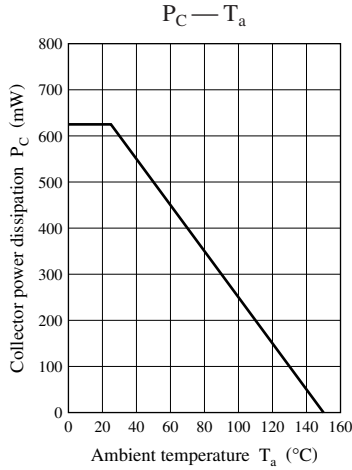
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	2SA0719	V_{CBO} $I_{\text{C}} = -10 \mu\text{A}, I_{\text{E}} = 0$	-30			V
	2SA0720		-60			
Collector-emitter voltage (Base open)	2SA0719	V_{CEO} $I_{\text{C}} = -10 \text{mA}, I_{\text{B}} = 0$	-25			V
	2SA0720		-50			
Emitter-base voltage (Collector open)	V_{EBO}	$I_{\text{E}} = -10 \mu\text{A}, I_{\text{C}} = 0$	-5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{\text{CB}} = -20 \text{V}, I_{\text{E}} = 0$			-0.1	μA
Forward current transfer ratio	h_{FE1} *	$V_{\text{CE}} = -10 \text{V}, I_{\text{C}} = -150 \text{mA}$	85		340	—
	h_{FE2}	$V_{\text{CE}} = -10 \text{V}, I_{\text{C}} = -500 \text{mA}$	40			
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = -300 \text{mA}, I_{\text{B}} = -30 \text{mA}$		-0.35	-0.60	V
Base-emitter saturation voltage	$V_{\text{BE(sat)}}$	$I_{\text{C}} = -300 \text{mA}, I_{\text{B}} = -30 \text{mA}$		-1.1	-1.5	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}	$V_{\text{CB}} = -10 \text{V}, I_{\text{E}} = 0, f = 1 \text{MHz}$		6	15	pF

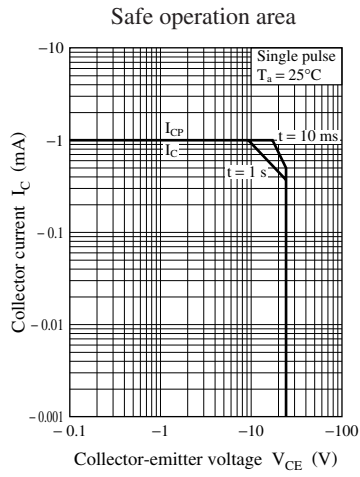
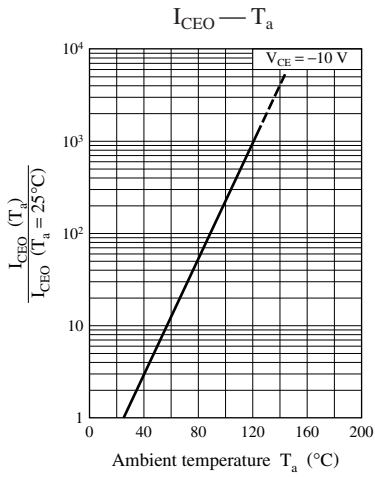
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Rank classification

Rank	Q	R	S
h_{FE1}	85 to 170	120 to 240	170 to 340

Note) The part numbers in the parenthesis show conventional part number.





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