

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

## Silicon PNP epitaxial planar type

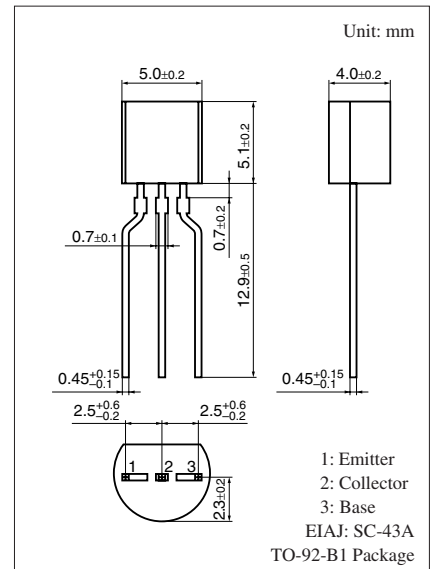
For low-frequency power amplification and driver amplification  
Complementary to 2SC1317, 2SC1318

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



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

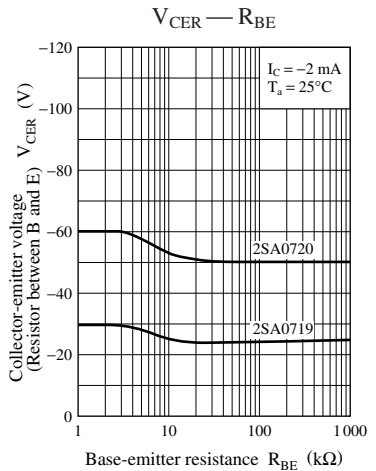
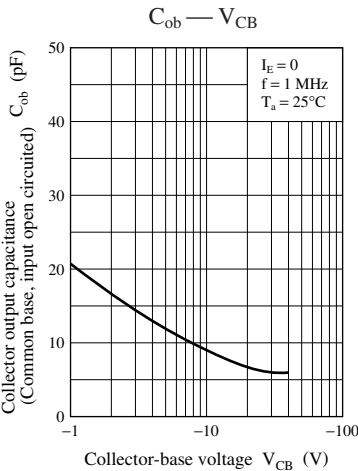
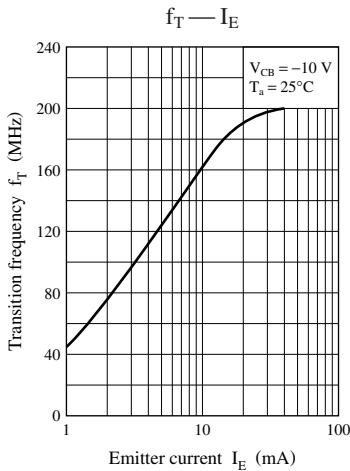
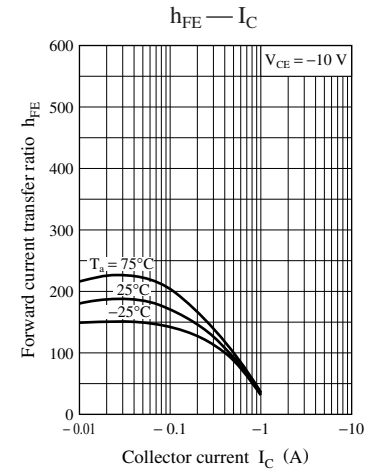
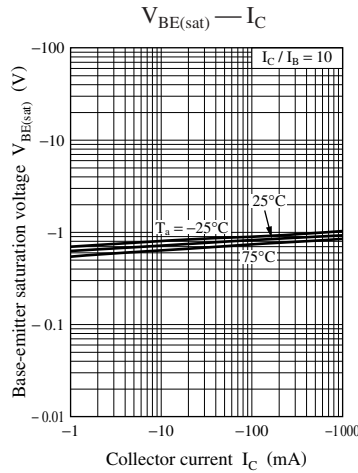
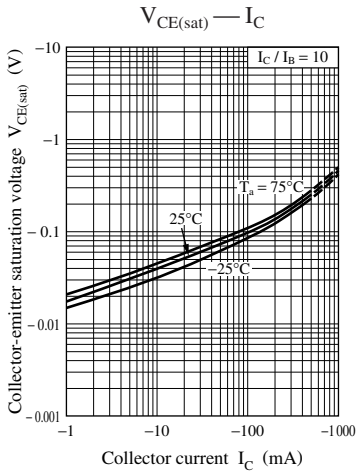
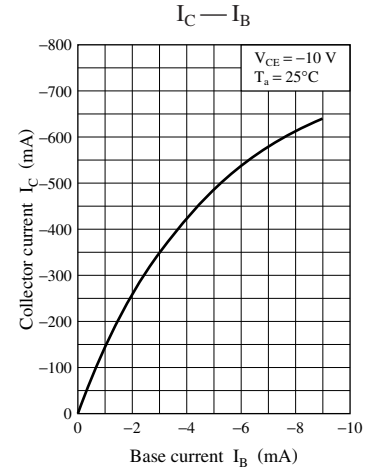
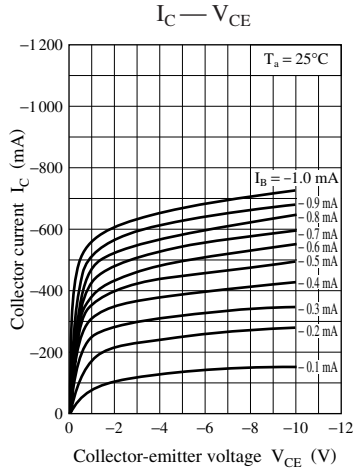
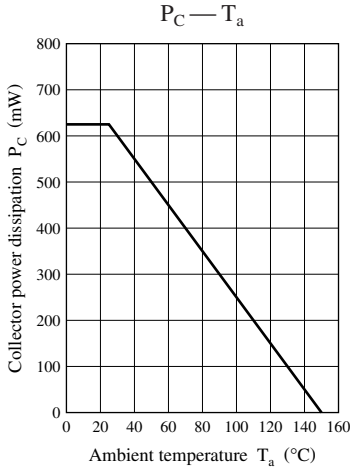
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	2SA0719	$V_{\text{CBO}}$	$I_{\text{C}} = -10 \mu\text{A}, I_{\text{E}} = 0$	-30		V
	2SA0720			-60		
Collector-emitter voltage (Base open)	2SA0719	$V_{\text{CEO}}$	$I_{\text{C}} = -10 \text{mA}, I_{\text{B}} = 0$	-25		V
	2SA0720			-50		
Emitter-base voltage (Collector open)	$V_{\text{EBO}}$	$I_{\text{E}} = -10 \mu\text{A}, I_{\text{C}} = 0$	-5		V	
Collector-base cutoff current (Emitter open)	$I_{\text{CBO}}$	$V_{\text{CB}} = -20 \text{V}, I_{\text{E}} = 0$			-0.1	$\mu\text{A}$
Forward current transfer ratio	$h_{\text{FE1}}$ *	$V_{\text{CE}} = -10 \text{V}, I_{\text{C}} = -150 \text{mA}$	85		340	—
	$h_{\text{FE2}}$	$V_{\text{CE}} = -10 \text{V}, I_{\text{C}} = -500 \text{mA}$	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	$f_{\text{T}}$	$V_{\text{CB}} = -10 \text{V}, I_{\text{E}} = 50 \text{mA}, f = 200 \text{MHz}$		200		MHz
Collector output capacitance (Common base, input open circuited)	$C_{\text{ob}}$	$V_{\text{CB}} = -10 \text{V}, I_{\text{E}} = 0, f = 1 \text{MHz}$		6	15	pF

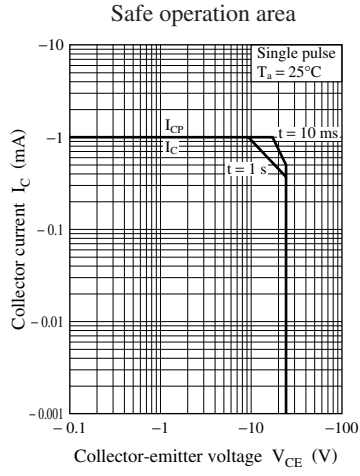
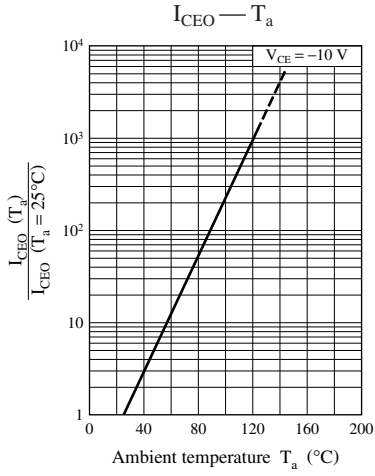
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. \*: Rank classification

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

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





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