



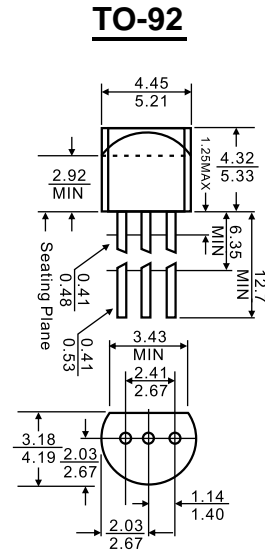
1. EMITTER
2. COLLECTOR
3. BASE

### Features

- ✧ For low-frequency power amplification and driver amplification

### MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage <b>2SA719</b>	-30	V
	<b>2SA720</b>	-60	
V <sub>CEO</sub>	Collector-Emitter Voltage <b>2SA719</b>	-25	V
	<b>2SA720</b>	-50	
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
I <sub>C</sub>	Collector Current -Continuous	-500	mA
P <sub>C</sub>	Collector Power Dissipation	625	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55-150	°C



Dimensions in inches and (millimeters)

### ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -10uA, I <sub>E</sub> =0	-30			V
			-60			
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -10mA, I <sub>B</sub> =0	-25			V
			-50			
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10uA, I <sub>C</sub> =0	-5			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = -20V, I <sub>E</sub> =0			-0.1	uA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = -4V, I <sub>C</sub> =0			-0.1	uA
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> =-10V, I <sub>C</sub> = -150mA	85		340	
	h <sub>FE(2)</sub>	V <sub>CE</sub> =-10V, I <sub>C</sub> = -500mA	40			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-300mA, I <sub>B</sub> = -30mA			-0.6	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -300mA, I <sub>B</sub> =-30mA			-1.5	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -50mA f = 200MHz		200		MHz
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V, I <sub>E</sub> =0, f=1MHz			15	pF

### CLASSIFICATION h<sub>FE(1)</sub>

Rank	Q	R	S
Range	85-170	120-240	170-340

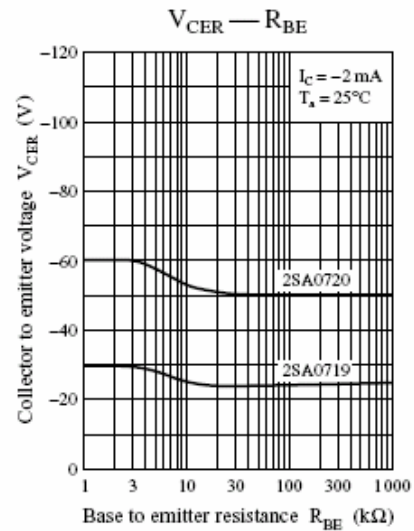
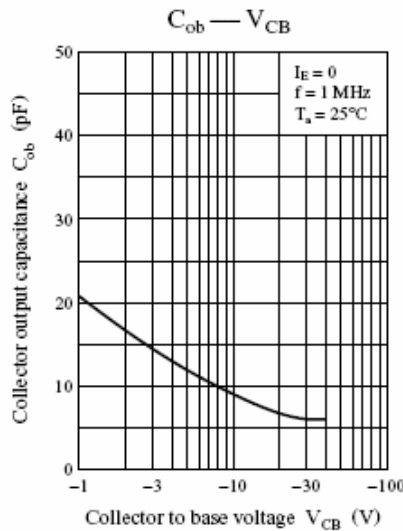
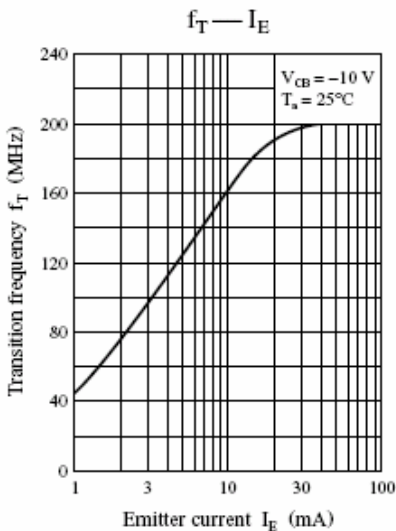
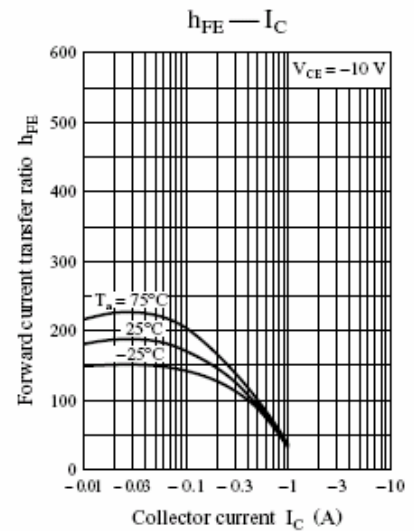
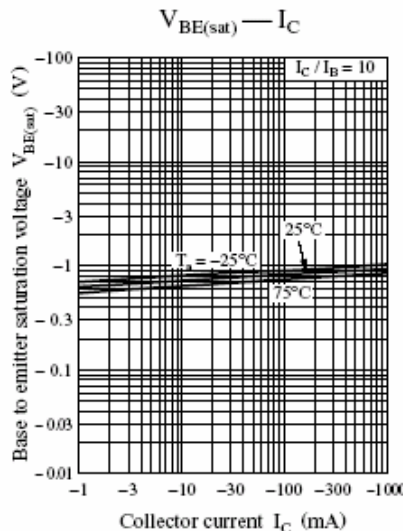
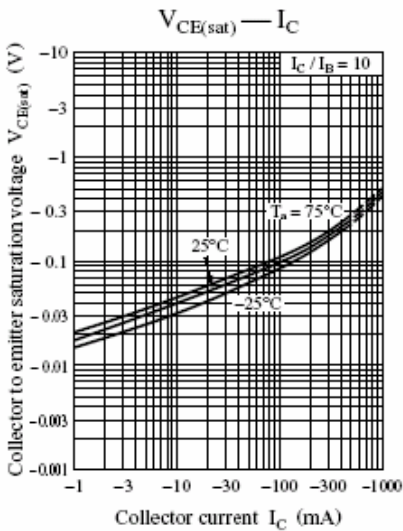
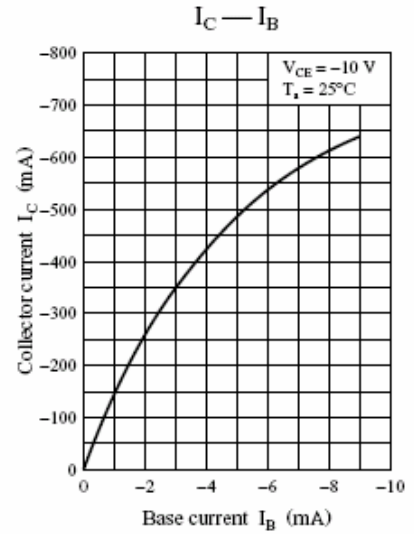
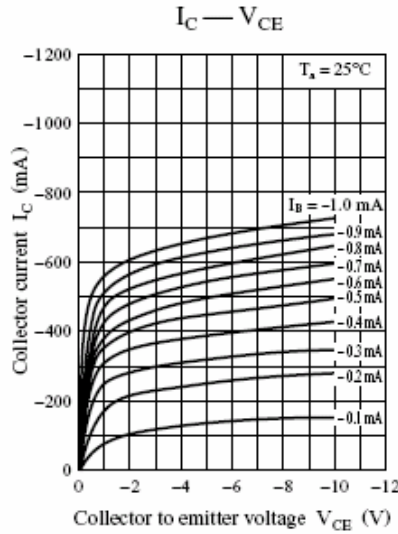
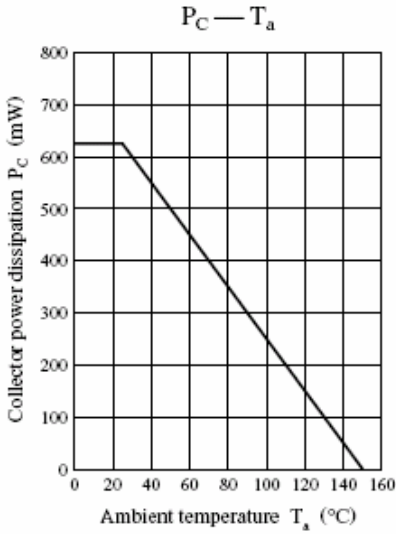


# 2SA719/2SA720(PNP)

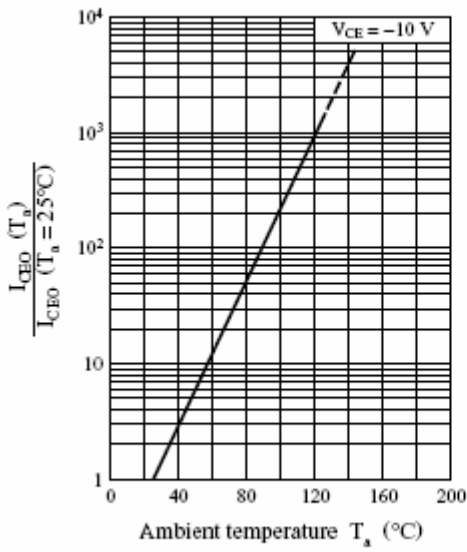
TO-92 Bipolar Transistors



## Typical Characteristics



$I_{CEO} - T_a$



Area of safe operation (ASO)

