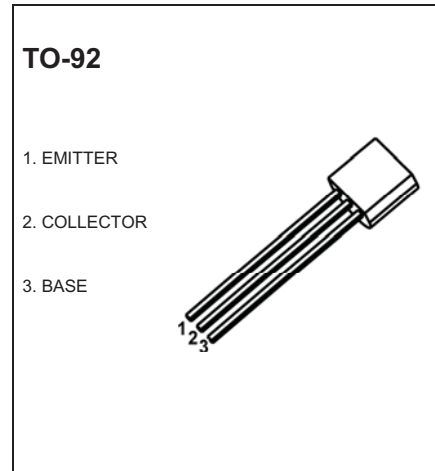


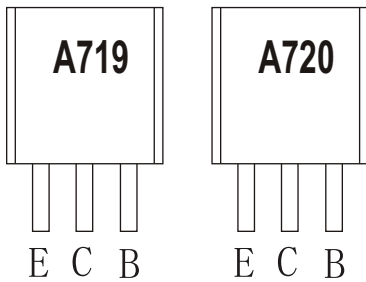
2SA719/2SA720 TRANSISTOR (PNP)

FEATURES

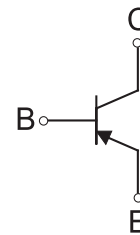
- For Low-Frequency Power Amplification and Driver Amplification



MARKING



Equivalent Circuit



MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit	
V _{CBO}	Collector-Base Voltage	2SA719	-30	V
		2SA720	-60	V
V _{CEO}	Collector-Emitter Voltage	2SA719	-25	V
		2SA720	-50	V
V _{EBO}	Emitter-Base Voltage	-5	V	
I _C	Collector Current -Continuous	-0.5	A	
P _D	Collector Power Dissipation	625	mW	
R _{θJA}	Thermal Resistance from Junction to Ambient	200	°C /W	
T _j	Junction Temperature	150	°C	
T _{stg}	Storage Temperature	-55~+150	°C	

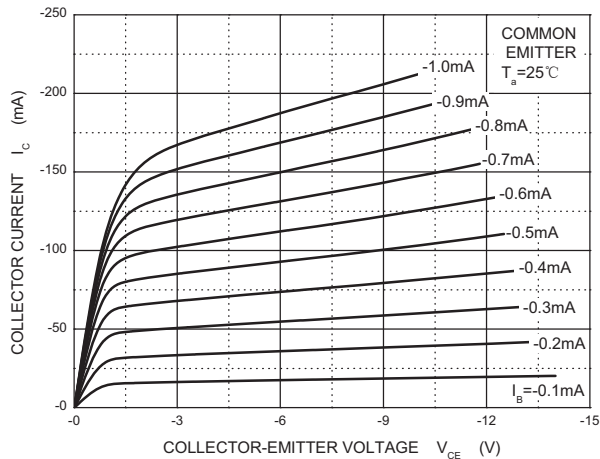
$T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage 2SA719 2SA720	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-30 -60			V
Collector-emitter breakdown voltage 2SA719 2SA720	$V_{(BR)CEO}$	$I_C = -10\text{mA}, I_B = 0$	-25 -50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0 - 5$				V
Collector cut-off current	I_{CBO}	$V_{CB} = -20\text{V}, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -10\text{V}, I_C = -150\text{mA}$	85		340	
	$h_{FE(2)}$	$V_{CE} = -10\text{V}, I_C = -500\text{mA}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -300\text{mA}, I_B = -30\text{mA}$			-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -300\text{mA}, I_B = -30\text{mA}$			-1.5	V
Transition frequency	f_T	$V_{CE} = -10\text{V}, I_C = -50\text{mA}$ $f = 200\text{MHz}$	200			MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$			15	pF

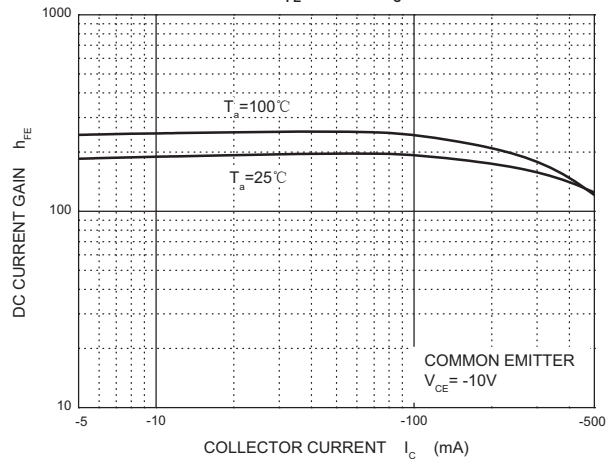
CLASSIFICATION $h_{FE(1)}$

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

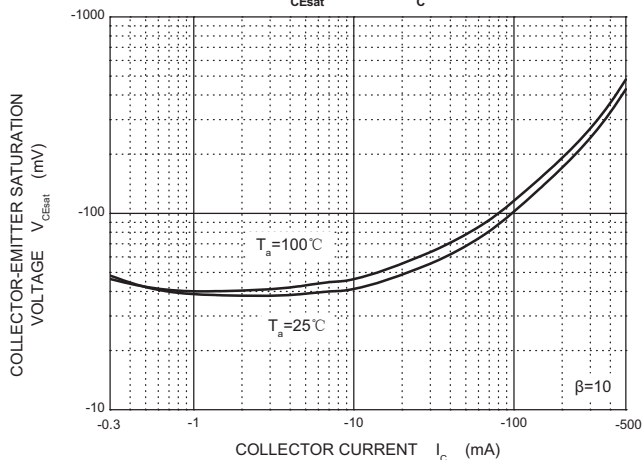
Static Characteristic



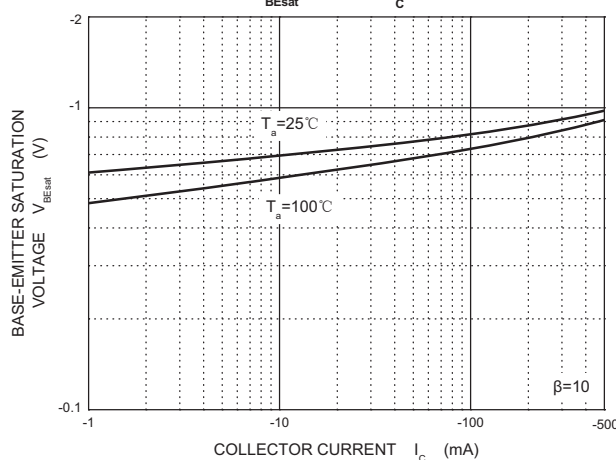
h_{FE} — I_c



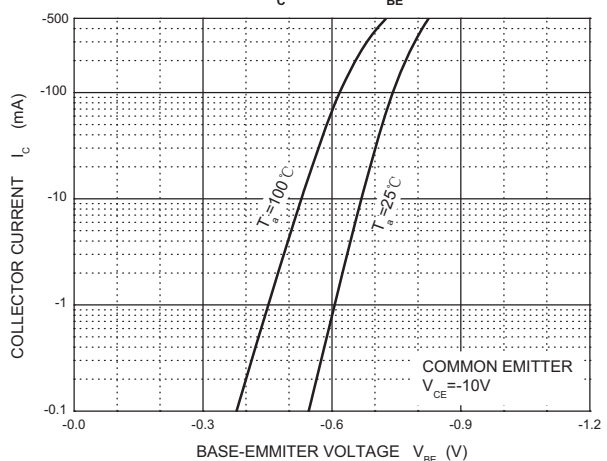
V_{CEsat} — I_c



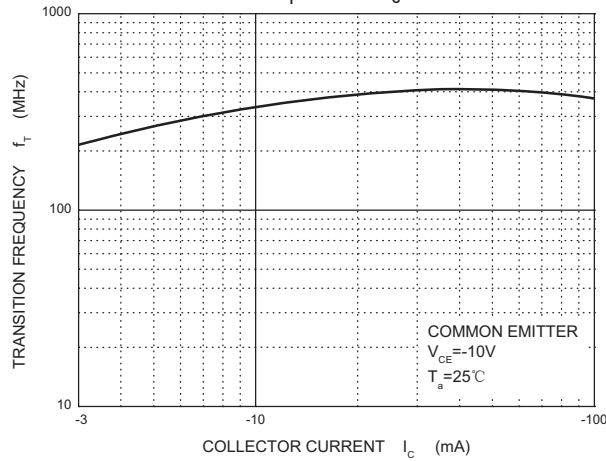
V_{BEsat} — I_c



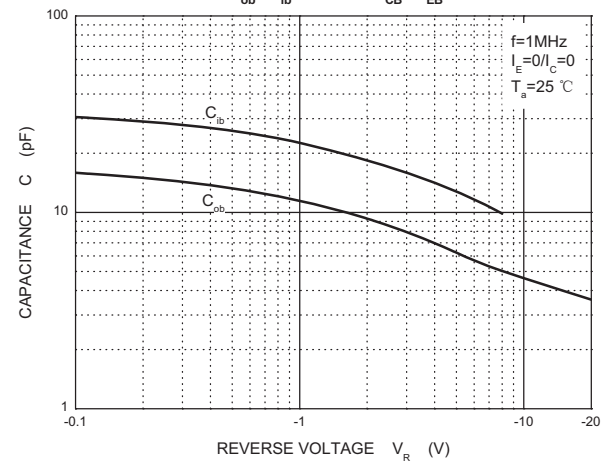
I_c — V_{BE}



f_T — I_c



C_{ob}/C_{ib} — V_{CB}/V_{EB}



P_c — T_a

