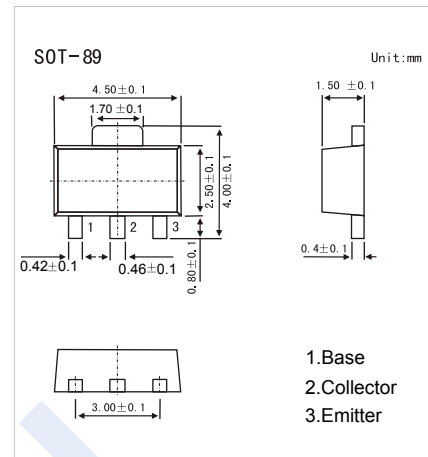


PNP Transistors

2SB1396

■ Features

- Low collector to emitter saturation voltage
- Large current capacity

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CB0}	-15	V
Collector - Emitter Voltage	V_{CE0}	-10	
Emitter - Base Voltage	V_{EB0}	-7	
Collector Current - Continuous	I_C	-3	A
Collector Current - Pulse	I_{CP}	-5	
Collector Power Dissipation	P_C	1.3	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CB0}	$I_C = -100\text{ }\mu\text{A}$, $I_E = 0$	-15			V
Collector- emitter breakdown voltage	V_{CE0}	$I_C = -1\text{ mA}$, $R_{BE} = \infty$	-10			
Emitter - base breakdown voltage	V_{EB0}	$I_E = -100\text{ }\mu\text{A}$, $I_C = 0$	-7			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -12\text{ V}$, $I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -6\text{ V}$, $I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1.5\text{ A}$, $I_B = -30\text{ mA}$		-0.22	-0.4	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1.5\text{ A}$, $I_B = -30\text{ mA}$		-0.9	-1.2	
DC current gain	h_{FE}	$V_{CE} = -2\text{ V}$, $I_C = -500\text{ mA}$	140		560	
		$V_{CE} = -2\text{ V}$, $I_C = -3\text{ A}$	70			
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$		26		pF
Transition frequency	f_T	$V_{CE} = -2\text{ V}$, $I_C = -300\text{ mA}$		400		MHz

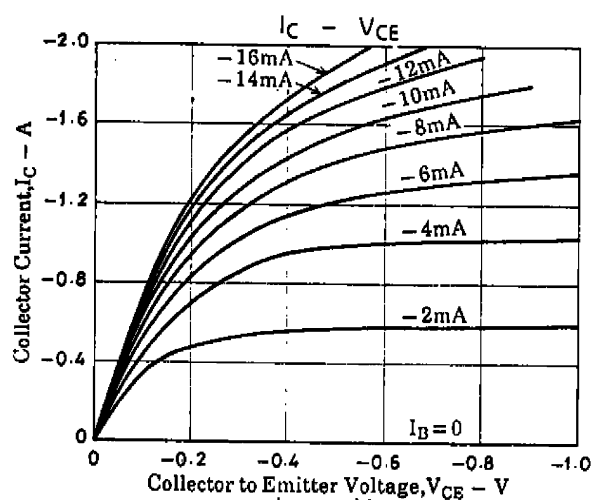
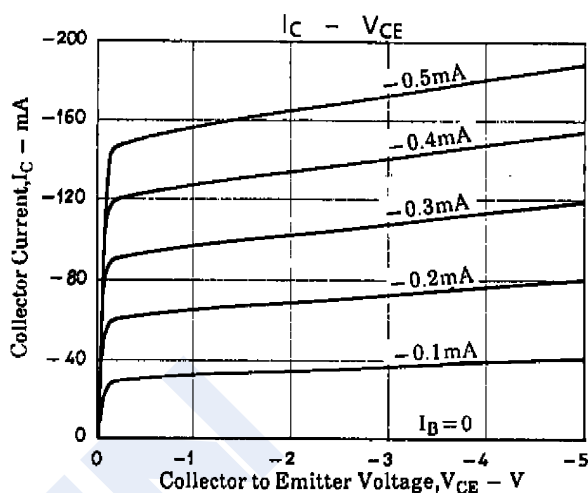
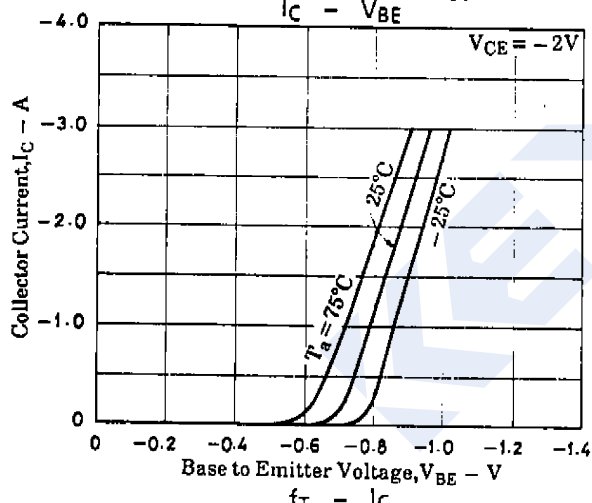
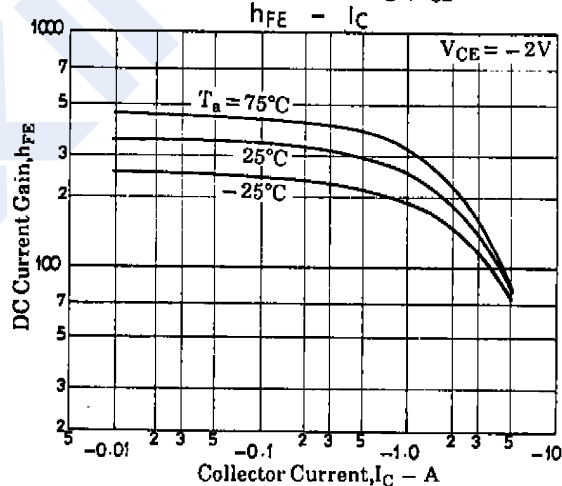
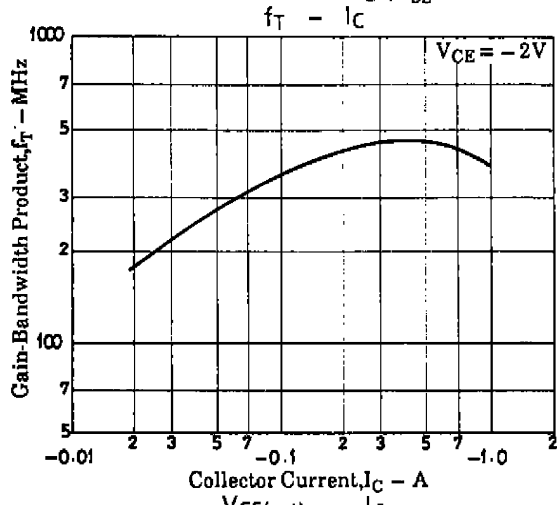
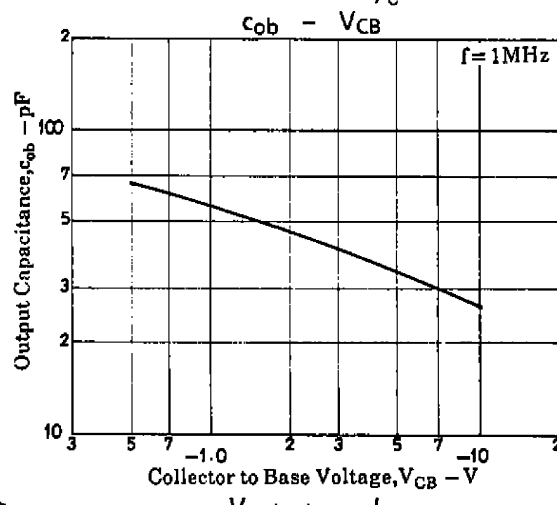
■ Classification of $h_{FE}(1)$

Type	2SB1396-S	2SB1396-T	2SB1396-U
Range	140-280	200-400	280-560
Marking	BO S*	BO T*	BO U*

PNP Transistors

2SB1396

■ Typical Characteristics



PNP Transistors

2SB1396

■ Typical Characteristics

