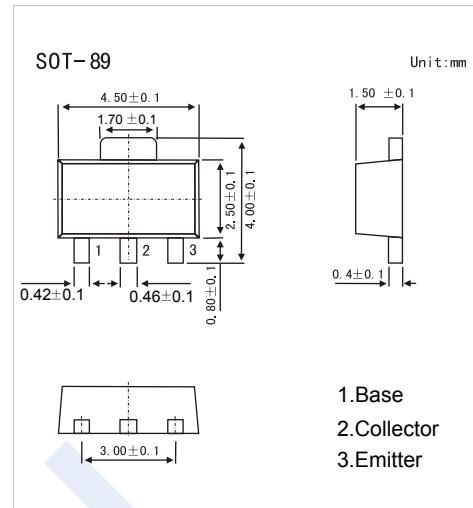


PNP Transistors

2SB956

■ Features

- Large collector power dissipation P_c .
- Low collector to emitter saturation voltage $V_{CE(sat)}$.
- Complementary to 2SD1280



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-20	V
Collector - Emitter Voltage	V_{CEO}	-20	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-1	A
Collector current -Pulse	I_{CP}	-2	
Collector Power Dissipation	P_c	1	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_{CBO}	$I_C = -100 \mu\text{A}, I_E = 0$	-20			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C = -1 \text{ mA}, I_B = 0$	-20			
Emitter-base breakdown voltage	V_{EBO}	$I_E = -100 \mu\text{A}, I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -20\text{V}, I_E = 0$			-1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{V}, I_C = 0$			-1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1 \text{ A}, I_B = -50\text{mA}$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500 \text{ mA}, I_B = -50\text{mA}$			-1.2	
DC current gain	$h_{FE(1)}$	$V_{CE} = -2\text{V}, I_C = -500\text{mA}$	130		280	
	$h_{FE(2)}$	$V_{CE} = -2\text{V}, I_C = -1.5 \text{ A}$	50			
Collector output capacitance	C_{ob}	$V_{CB} = -6\text{V}, I_E = 0, f = 1\text{MHz}$		40		pF
Transition frequency	f_T	$V_{CE} = -6\text{V}, I_E = 50\text{mA}, f = 200\text{MHz}$		200		MHz

■ Classification of $h_{fe(1)}$

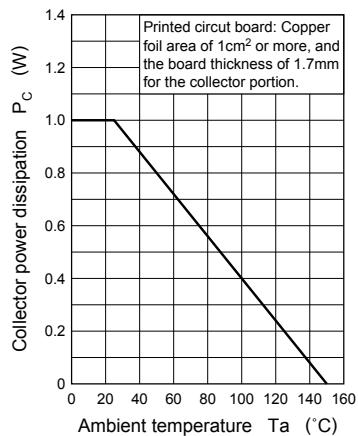
Type	2SB956-R	2SB956-S
Range	130-210	180-280
Marking	HR	HS

PNP Transistors

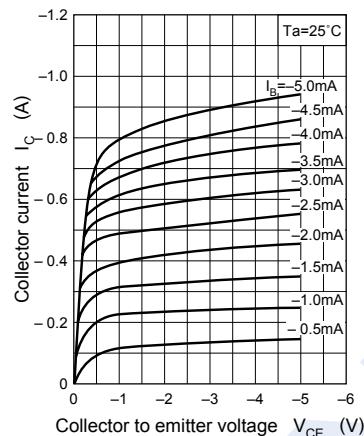
2SB956

■ Typical Characteristics

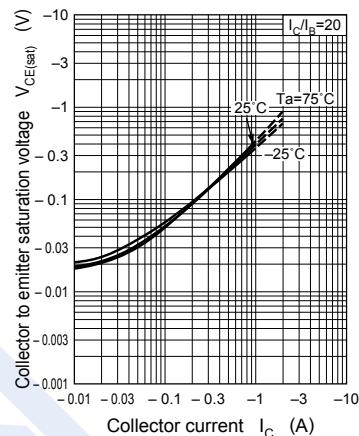
P_C — T_a



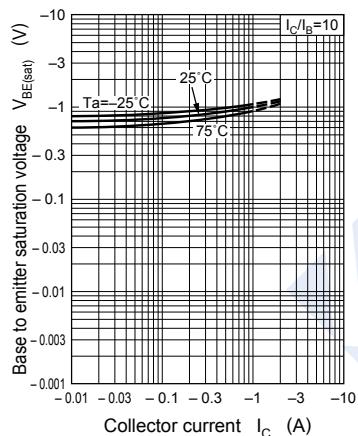
I_C — V_{CE}



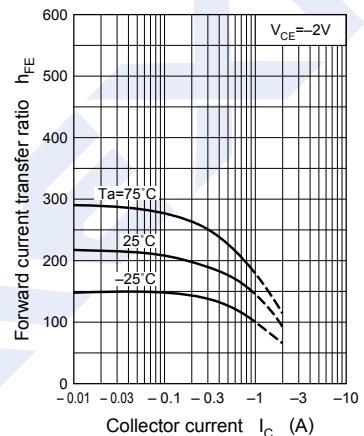
$V_{CE(sat)}$ — I_C



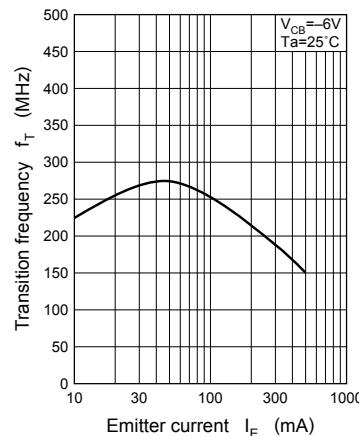
$V_{BE(sat)}$ — I_C



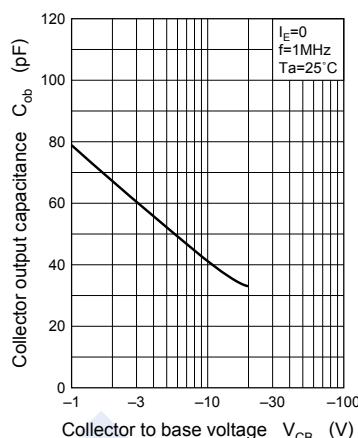
h_{FE} — I_C



f_T — I_E



C_{ob} — V_{CB}



Area of safe operation (ASO)

