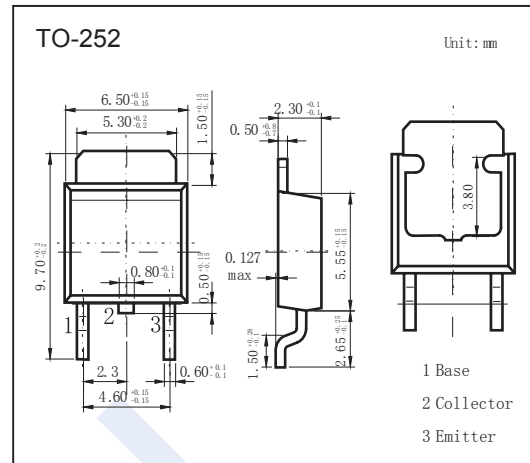


PNP Transistors

2SB1070A

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$.
- High-speed switching.

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-50	V
Collector - Emitter Voltage	V_{CEO}	-40	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-4	A
Collector current -Pulse	I_{CP}	-8	
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_{CBO}	$I_C = -100 \mu\text{A}$, $I_E = 0$	-50			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -10 \text{ mA}$, $I_B = 0$	-40			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu\text{A}$, $I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -50\text{V}$, $I_E = 0$			-50	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{V}$, $I_C = 0$			-50	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -2 \text{ A}$, $I_B = -100 \text{ mA}$			-0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -2 \text{ A}$, $I_B = -100 \text{ mA}$			-1.5	
DC current gain	h_{FE}	$V_{CE} = -2\text{V}$, $I_C = -1 \text{ A}$	90		260	
		$V_{CE} = -2\text{V}$, $I_C = -100 \text{ mA}$	45			
Turn-on time	t_{on}	$I_C = -2 \text{ A}$, $I_{B1} = -0.2 \text{ A}$, $I_{B2} = 0.2 \text{ A}$, $V_{CC} = -20 \text{ V}$		0.3		μs
Storage time	t_{stg}			0.4		
Fall time	t_f			0.1		
Transition frequency	f_T	$V_{CE} = -5 \text{ V}$, $I_C = -0.5 \text{ A}$, $f = 10 \text{ MHz}$		150		MHz

■ Classification of $h_{FE}(1)$

Type	2SB1070A-Q	2SB1070A-P
Range	90-180	130-260

PNP Transistors

2SB1070A

■ Typical Characteristics

