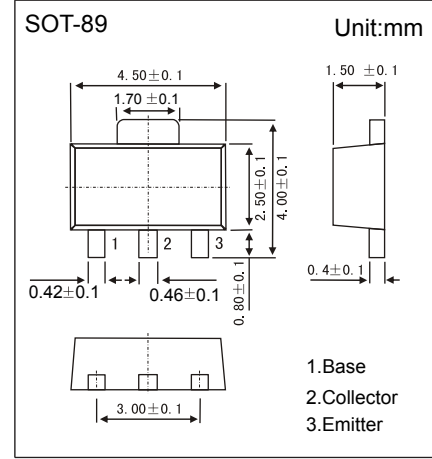


**PNP Transistors**

**2SB1440**

■ Features

- Collector Current Capability  $I_C = -2A$
- Collector Emitter Voltage  $V_{CE0} = -50V$
- Complementary to 2SD2185



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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	-50	V
Collector - Emitter Voltage	$V_{CE0}$	-50	
Emitter - Base Voltage	$V_{EB0}$	-5	
Collector Current - Continuous	$I_C$	-2	A
Collector Current - Pulse	$I_{CP}$	-3	
Collector Power Dissipation	$P_D$	1	W
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature range	$T_{stg}$	-55 to 150	

■ Electrical Characteristics  $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_C = -100 \mu A, I_E = 0$	-50			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = -1 mA, I_B = 0$	-50			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = -100 \mu A, I_C = 0$	-5			
Collector-base cut-off current	$I_{CB0}$	$V_{CB} = -50V, I_E = 0$			-0.1	$\mu A$
Emitter cut-off current	$I_{EB0}$	$V_{EB} = -5V, I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1 A, I_B = -50mA$			-0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -1 A, I_B = -50mA$			-1.2	
DC current gain	$h_{FE}$	$V_{CE} = -2V, I_C = -200mA$	120		340	
		$V_{CE} = -2V, I_C = -1 A$	60			
Collector output capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$			60	pF
Transition frequency	$f_T$	$V_{CB} = -10V, I_E = 50mA, f = 200MHz$		80		MHz

■ Classification of  $h_{fe}(1)$

Type	2SB1440-R	2SB1440-S
Range	120-240	170-340
Marking	11R	11S

## PNP Transistors

### 2SB1440

■ Typical Characteristics

