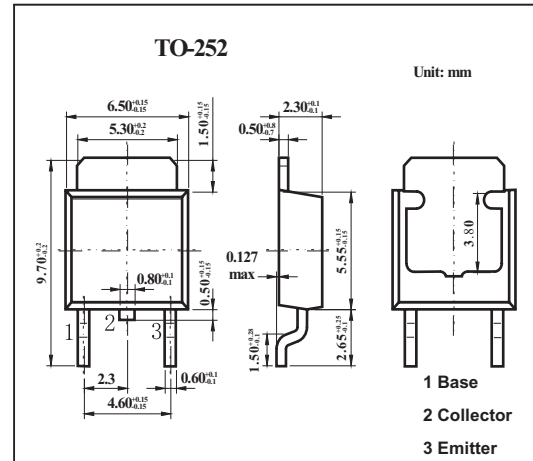


## Silicon PNP Epitaxial

## 2SB906

## ■ Features

- Low collector saturation voltage.
- High power dissipation.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-60	V
Collector-emitter voltage	$V_{CEO}$	-60	V
Emitter-base voltage	$V_{EB0}$	-7	V
Collector current	$I_C$	-3	mA
Base current	$I_B$	-0.5	mA
Collector power dissipation	$P_C$	1	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = -60\text{ V}, I_E = 0$			-100	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -7\text{ V}, I_C = 0$			-100	$\mu\text{A}$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -50\text{ mA}, I_B = 0$	-60			V
DC current gain	hFE	$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}$	60		200	
		$V_{CE} = -5\text{ V}, I_C = -3\text{ A}$	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -3\text{ A}, I_B = -0.3\text{ A}$		-1	-1.7	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}$		-1	-1.5	V
Transition frequency	$f_T$	$V_{CE} = -5\text{ V}, I_C = -0.5\text{ A}$		9		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$		150		pF
Turn-on time	$t_{on}$	$-I_{B1} = I_{B2} = 0.2\text{ A}, V_{CC} = -30\text{ V}, \text{duty cycle } 1\%$		0.4		$\mu\text{s}$
Storage time	$t_{stg}$			1.7		$\mu\text{s}$
Fall time	$t_f$				0.5	$\mu\text{s}$

## ■ hFE Classification

Rank	O	Y
hFE	60~120	100~200