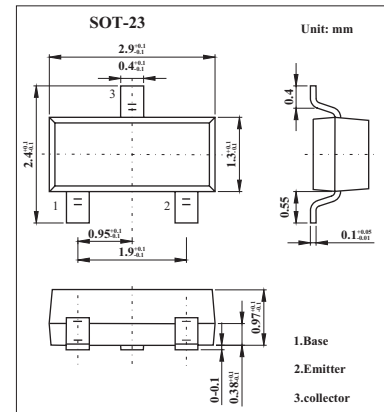


## Silicon PNP Epitaxial

## 2SA1182

## ■ Features

- SOT-23 package

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-35	V
Collector-emitter voltage	$V_{CEO}$	-30	V
Emitter-base voltage	$V_{EB0}$	-5	V
Collector current	$I_C$	-500	mA
Base current	$I_B$	-50	mA
Collector power dissipation	$P_C$	150	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = -35\text{ V}, I_E = 0$			-0.1	$\mu\text{ A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5\text{ V}, I_C = 0$			-0.1	$\mu\text{ A}$
DC current gain	$h_{FE}$	$V_{CE} = -1\text{ V}, I_C = -100\text{ mA}$	70		240	
		$V_{CE} = -6\text{ V}, I_C = -400\text{ mA}$	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{ mA}, I_B = -10\text{ mA}$		-0.1	-0.25	V
Base-emitter voltage	$V_{BE}$	$V_{CE} = -1\text{ V}, I_C = -100\text{ mA}$		-0.8	-1.0	V
Collector output capacitance	$C_{ob}$	$V_{CB} = -6\text{ V}, I_E = 0, f = 1\text{ MHz}$		13		pF
Transition frequency	$f_T$	$V_{CE} = -6\text{ V}, I_C = -20\text{ mA}$		200		MHz

## ■ hFE Classification

Marking	ZO	ZY
Rank	O	Y
hFE	70~140	120~240

# 2SA1182

■ Typical Characteristics

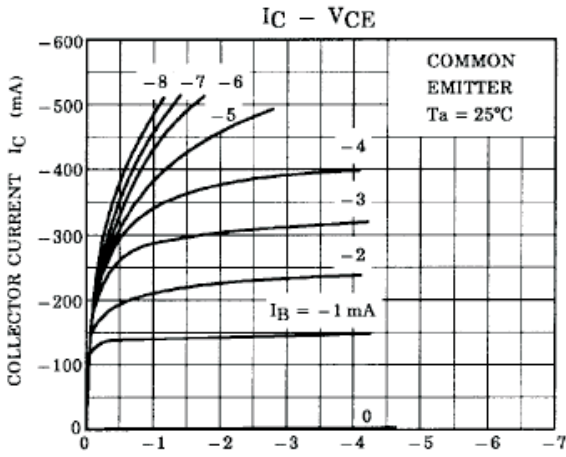


Fig. 1 Collector Emitter Voltage

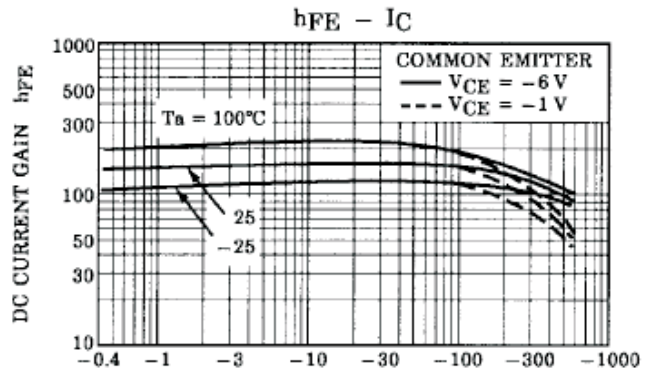


Fig.2 Collector Current

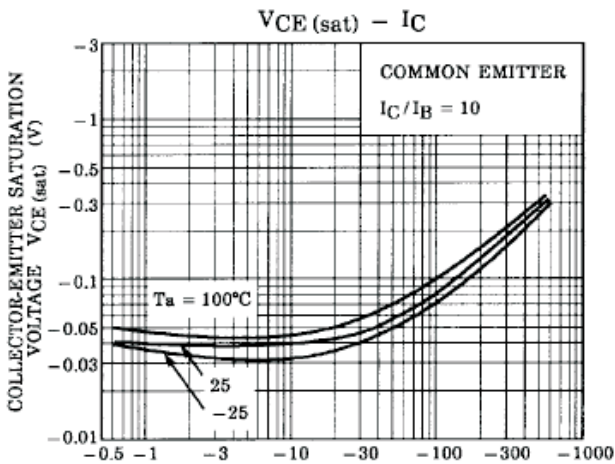


Fig.3 Collector Current

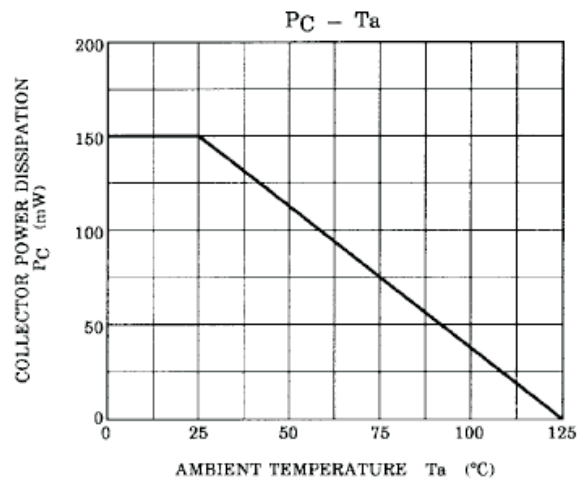


Fig.4 Ambient Temperature

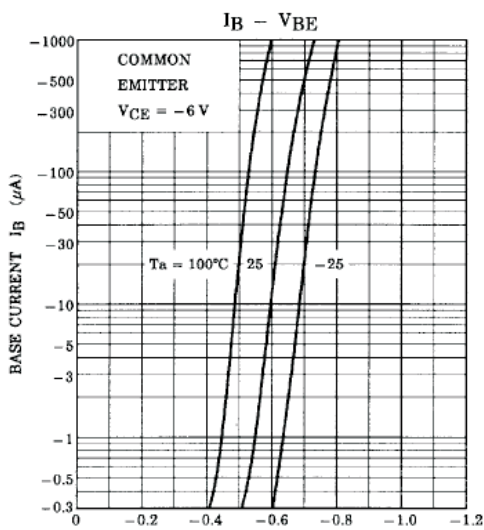


Fig.5 Base Emitter Voltage