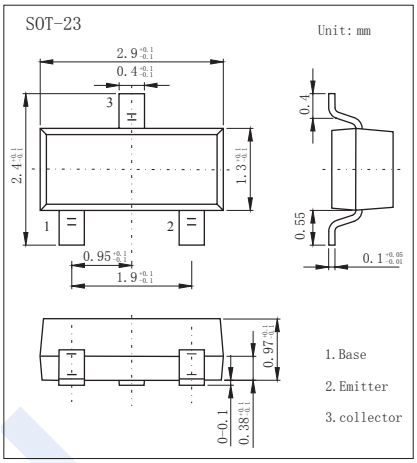
PNP Transistors

2SA1182



■ Features

- Collector Current Capability I_C=-0.5A
- Collector Emitter Voltage V_{CEO}=-32V
- Complementary to 2SC2859.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-40	V
Collector - Emitter Voltage	V_{CEO}	-32	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-500	mA
Base Current - Continuous	I_B	-50	
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_J	125	℃
Storage Temperature range	T_{stg}	-55 to 125	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= -100 μA, I_E=0	-40			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= -1 mA, I_B=0	-32			
Emitter - base breakdown voltage	V_{EBO}	I_E= -100 μ A, I_C=0	-5			
Collector-base cut-off current	I_{CBO}	V_{CB}= -40 V , I_E=0			-0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= -5V , I_C=0			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100 mA, I_B=-10mA		-0.1	-0.25	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-100 mA, I_B=-10mA			-1.2	
Base-emitter voltage	V_{BE}	V_{CE}=-1V,I_C=-100 mA		-0.8	-1	
DC current gain	$h_{FE(1)}$	V_{CE}= -1V, I_C= -100mA	70		400	
	$h_{FE(2)}$	V_{CE}=- 6V, I_C= -400mA *1	25			
Collector output capacitance	C_{ob}	V_{CB}= -6V, I_E= 0,f=1MHz		13		pF
Transition frequency	f_T	V_{CE}= -6V, I_C= -20mA		200		MHz

*1: $h_{FE\ (2)}$ classification O: 25 (min), Y: 40 (min), GR: 70 (min)

■ Classification of $h_{fe(1)}$

Type	2SA1182-O	2SA1182-Y	2SA1182-G
Range	70-140	120-240	200-400
Marking	ZO	ZY	ZG

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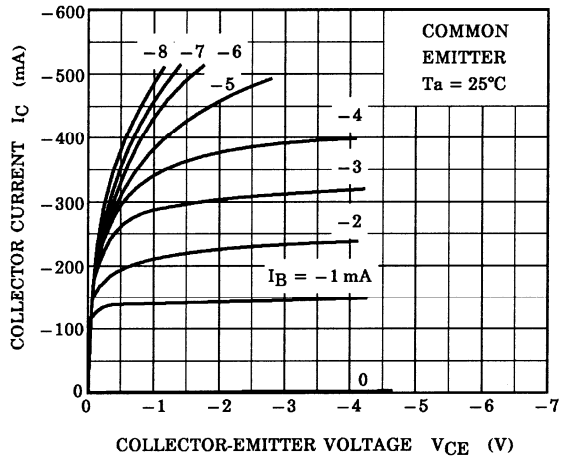
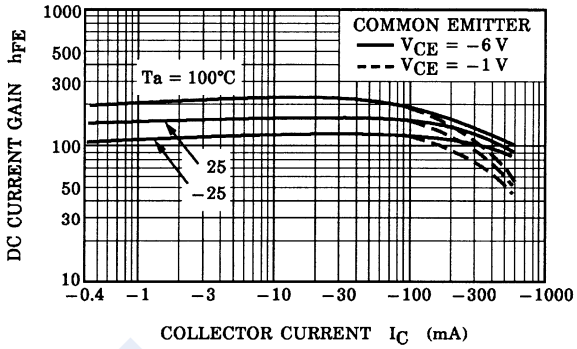
2SA1182

■ Typical Characterisitics

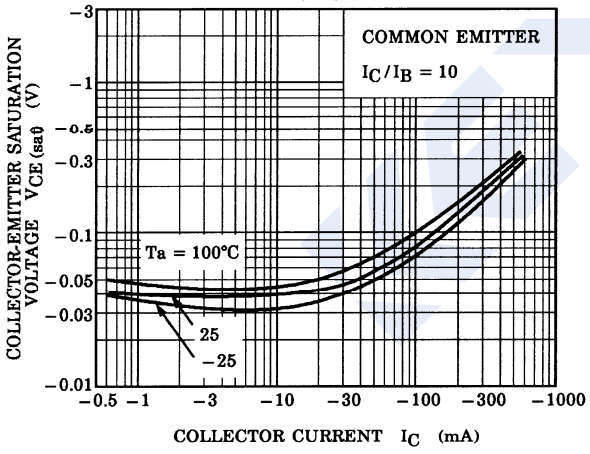
I_C – V_{CE}



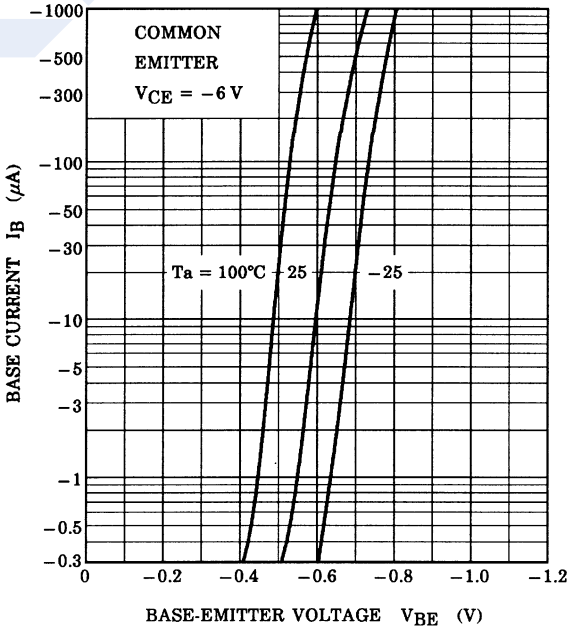
h_{FE} – I_C



$V_{CE\,(sat)}$ – I_C



I_B – V_{BE}



P_C – Ta