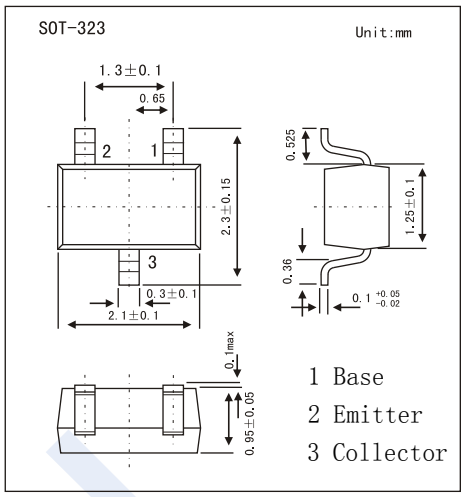
PNP Transistors

2SA1980UF



■ Features

- Low collector saturation voltage
- Low output capacitance : C_{ob}=4pF(Typ.)
- Complements to 2SC5343UF

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-50	V
Collector - Emitter Voltage	V_{CEO}	-50	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-150	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

■ 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	-50			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= -1 mA, I_B= 0	-50			
Emitter - base breakdown voltage	V_{EBO}	I_E= -100 μ A, I_C=0	-5			
Collector-base cut-off current	I_{CBO}	V_{CB}= -50V , 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=-100mA, I_B=-10mA			-0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=-100mA, I_B=-10mA			-1.2	
DC current gain	h_{FE}	V_{CE}= -6V, I_C= -2mA	70		700	
Noise figure	NF	V_{CE}=-6V, I_C=-0.1mA f=1KHz, R_g=10KΩ		10		dB
Collector output capacitance	C_{ob}	V_{CB}= -10V, I_E= 0,f=1MHz		7		pF
Transition frequency	f_T	V_{CE}= -10V, I_C= -1mA		80		MHz

■ Classification of h_{fe}

Type	2SA1980UF-O	2SA1980UF-Y	2SA1980UF-G	2SA1980UF-L
Range	70-140	120-240	200-400	300-700
Marking	CO	CY	CG	CL

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■ Typical Characterisitics

Fig. 1 P_C - T_a

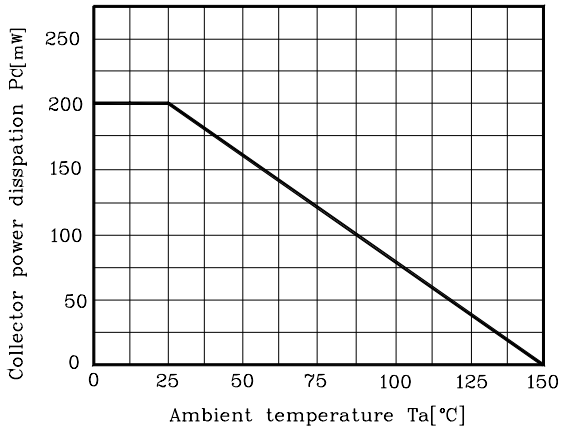

Fig. 2 I_C - V_{BE}

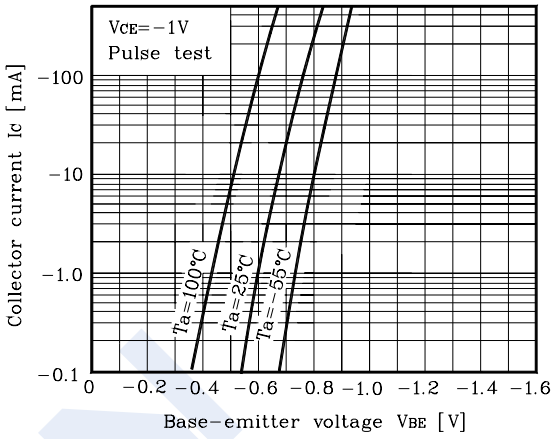

Fig. 3 I_C - V_{CE}

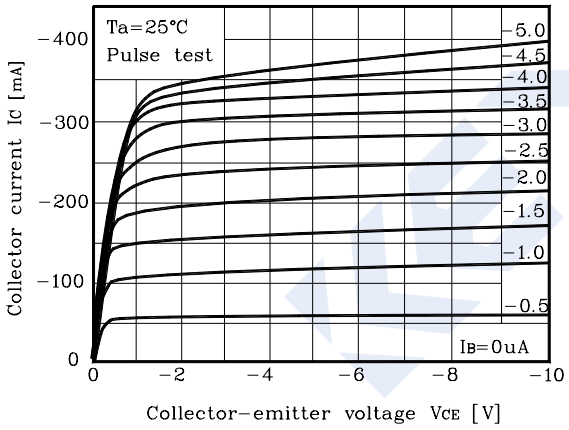

Fig. 4 h_{FE} - I_C

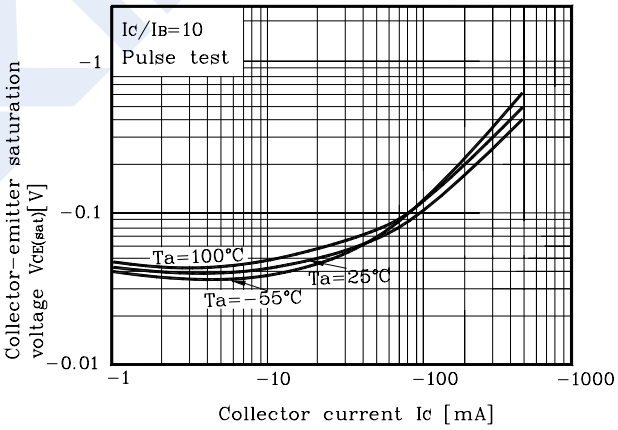

Fig. 5 $V_{CE(sat)}$ - I_C