

Description

- Medium power amplifier

Features

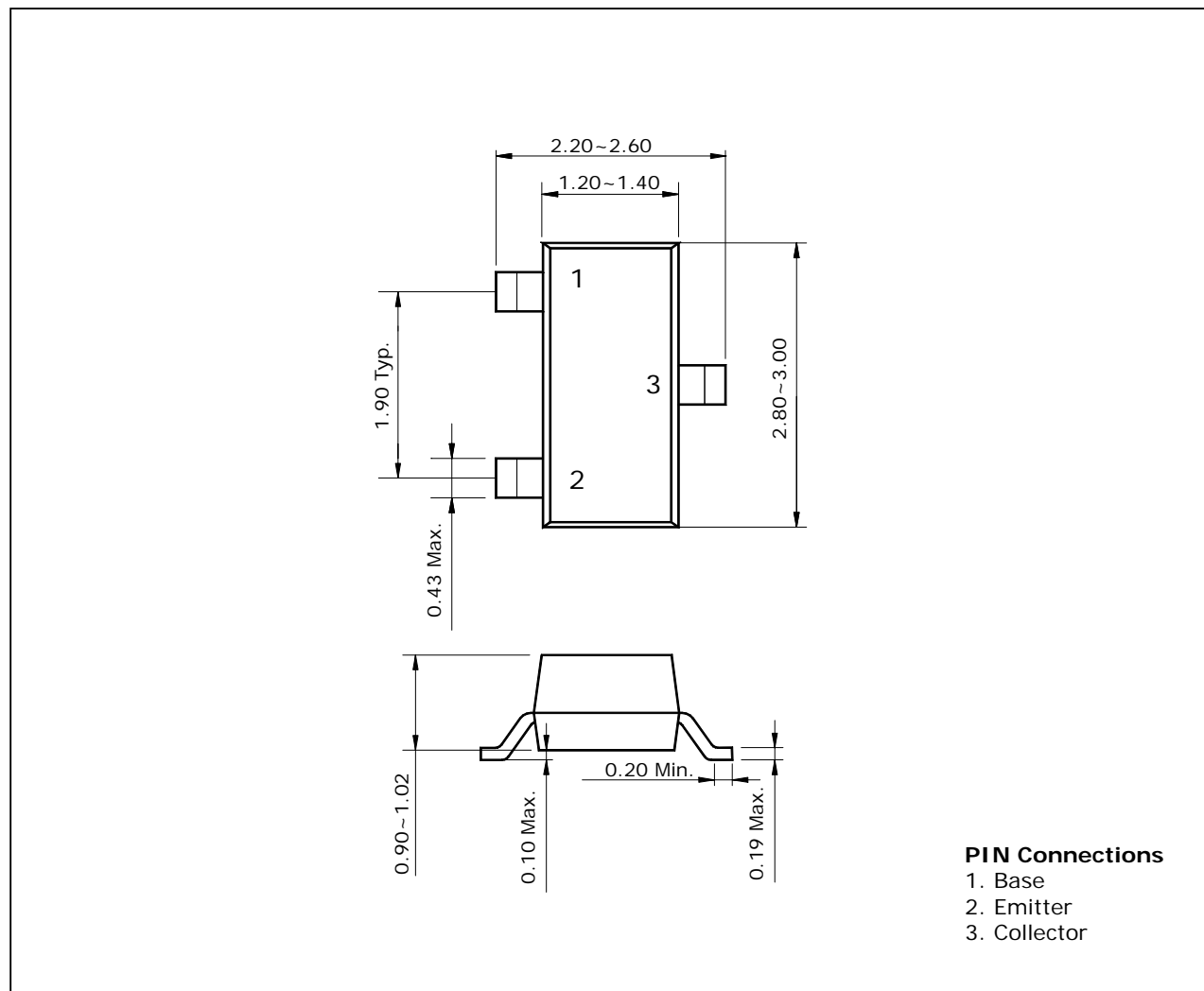
- Large collector current : $I_{CMax} = -500mA$
- Suitable for low-Voltage operation because of its low saturation voltage
- Complementary pair with 2SC5342S

Ordering Information

Type NO.	Marking	Package Code
2SA1979S	AA ① ② ③	SOT-23
①Device Code ②hFE Rank ③Year&Week Code		

Outline Dimensions

unit : mm



Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-40	V
Collector-emitter voltage	V_{CEO}	-32	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-500	mA
Collector power dissipation	P_C	350	mW
Junction temperature	T_J	150	°C
Storage temperature range	T_{stg}	-55 ~ 150	°C

Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = -1\text{mA}, I_B = 0$	-32	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB} = -40\text{V}, I_E = 0$	-	-	-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\text{V}, I_C = 0$	-	-	-0.1	μA
DC current gain	h_{FE}^*	$V_{CE} = -1\text{V}, I_C = -100\text{mA}$	70	-	240	-
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}, I_B = -10\text{mA}$	-	-	-0.25	V
Transition frequency	f_T	$V_{CE} = -6\text{V}, I_C = -20\text{mA}$	-	200	-	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -6\text{V}, I_E = 0, f = 1\text{MHz}$	-	7.5	-	pF

* : h_{FE} rank / O : 70~140, Y : 120~240

Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

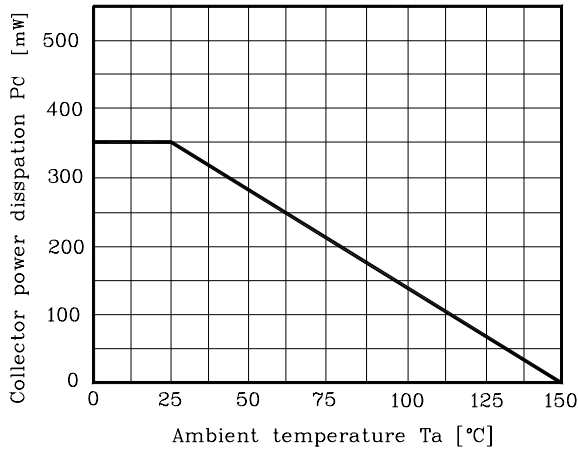


Fig. 2 $I_C - V_{BE}$

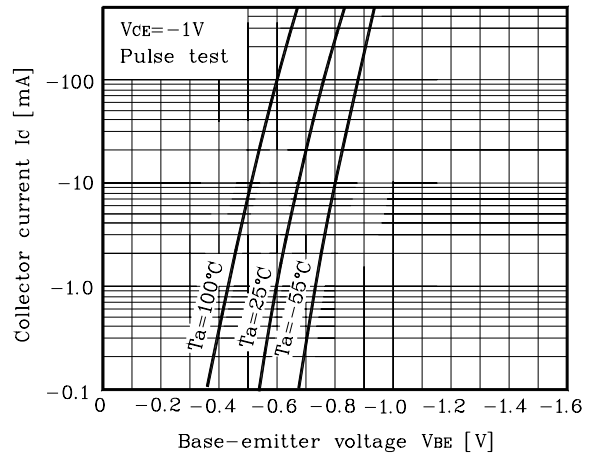


Fig. 3 $I_C - V_{CE}$

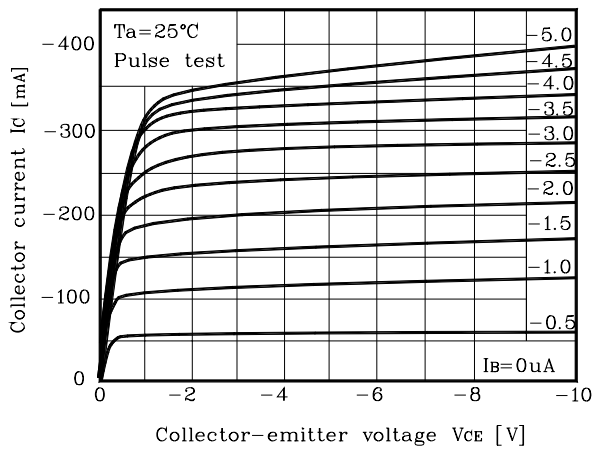


Fig. 4 $V_{CE(sat)} - I_C$

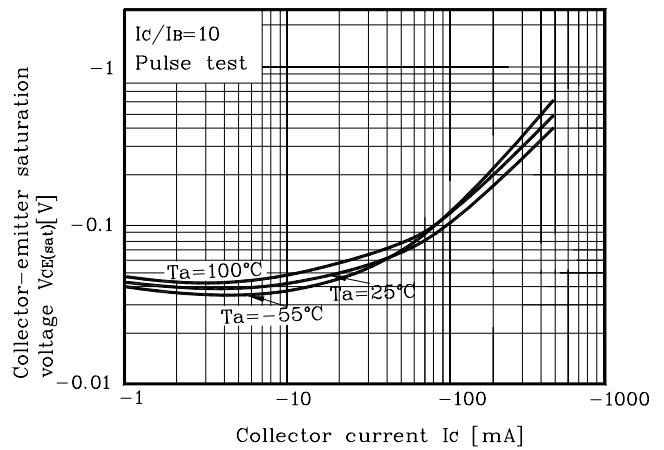


Fig. 5 $h_{FE} - I_C$

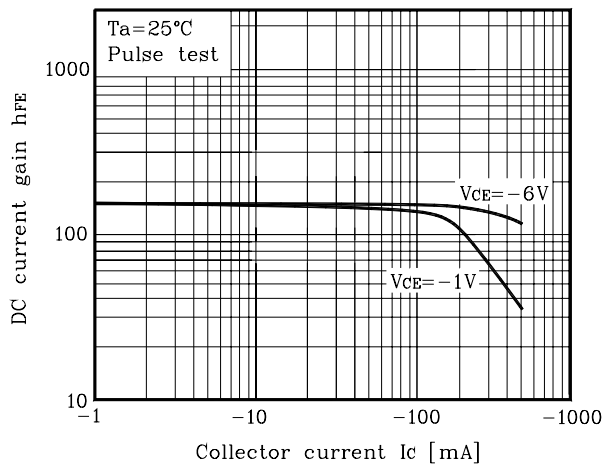
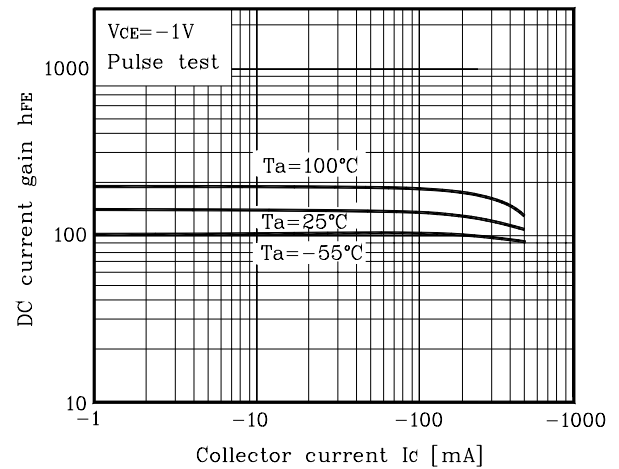


Fig. 6 $h_{FE} - I_C$



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