

# 2SA1698

## Silicon PNP Epitaxial Planar Type

General Amplifier  
Complementary Pair with 2SC2258

### ■ Feature

- High collector-emitter voltage ( $V_{CE0}$ )

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

Item	Symbol	Value	Unit
Collector-base voltage	$V_{CBO}$	-300	V
Collector-emitter voltage	$V_{CEO}$	-300	V
Emitter-base voltage	$V_{EBO}$	-5	V
Peak collector current	$I_{CP}$	-100	mA
Collector current	$I_C$	-70	mA
Collector power dissipation	$P_C$	1	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 ~ +150	$^\circ\text{C}$

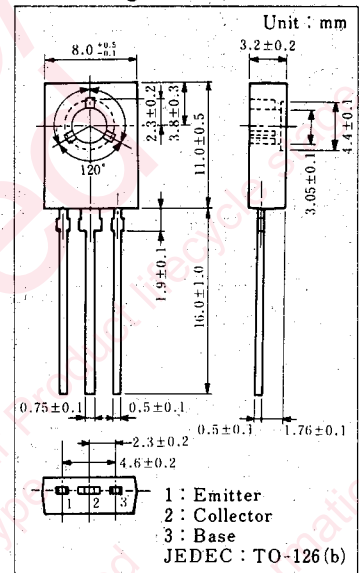
### ■ Electrical Characteristics ( $T_c=25^\circ\text{C}$ )

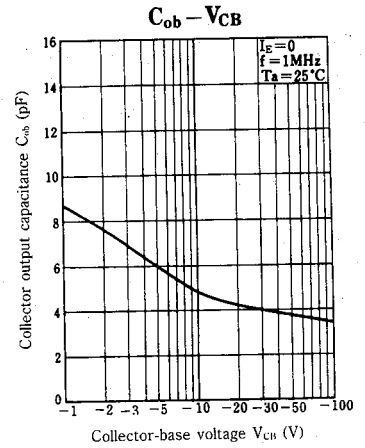
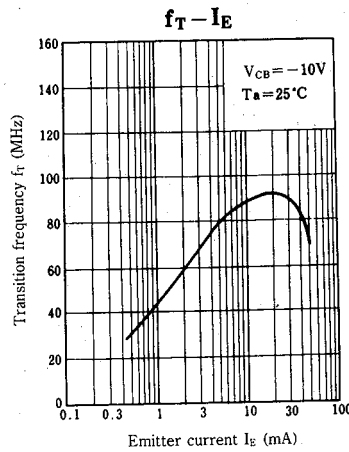
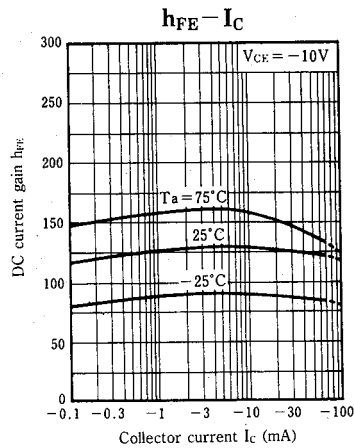
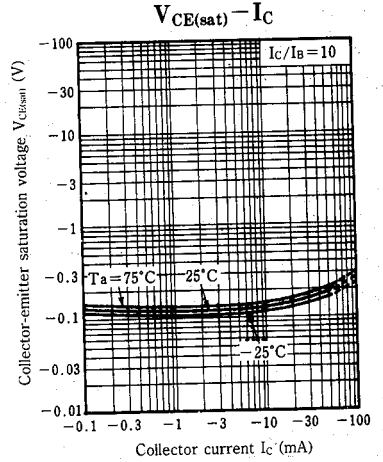
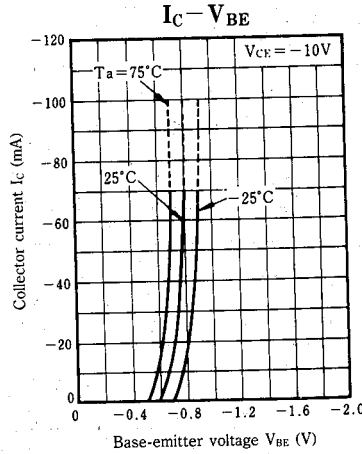
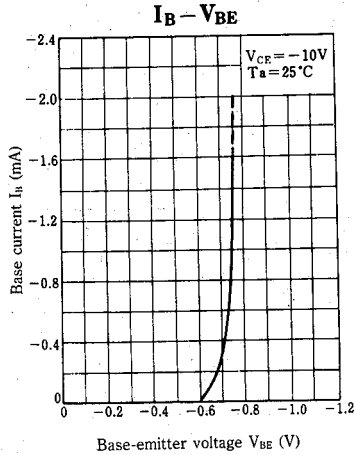
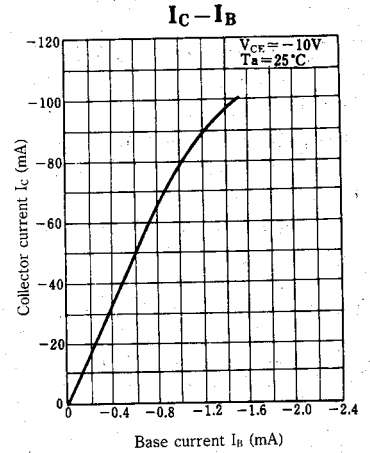
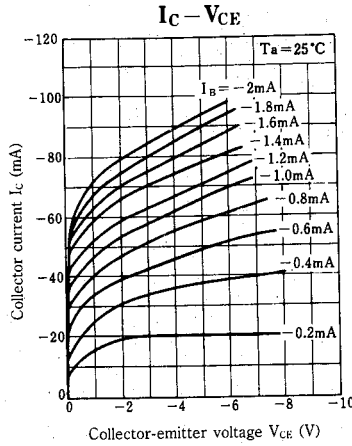
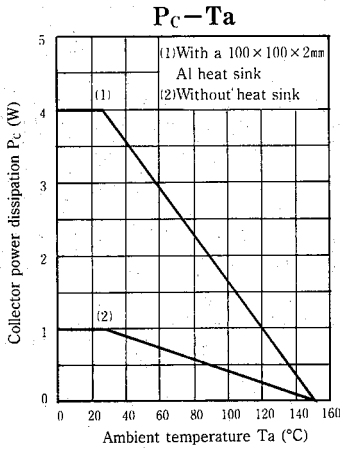
Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	$I_{CEO}$	$V_{CE} = -120\text{V}, I_B = 0$			-1	$\mu\text{A}$
Collector-emitter voltage	$V_{CEO}$	$I_C = -100\mu\text{A}, I_B = 0$	-300			V
Emitter-base voltage	$V_{EBO}$	$I_E = -1\mu\text{A}, I_C = 0$	-5			V
DC current gain	$h_{FE}^*$	$V_{CE} = -10\text{V}, I_C = -5\text{mA}$	30		220	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50\text{mA}, I_B = -5\text{mA}$			-1.5	V
Transition frequency	$f_T$	$V_{CB} = -10\text{V}, I_E = 10\text{mA}, f = 200\text{MHz}$	50	80		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$			10	pF

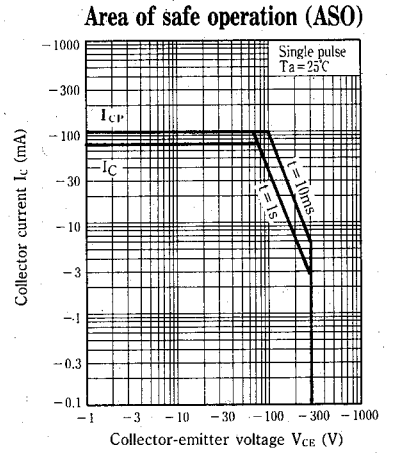
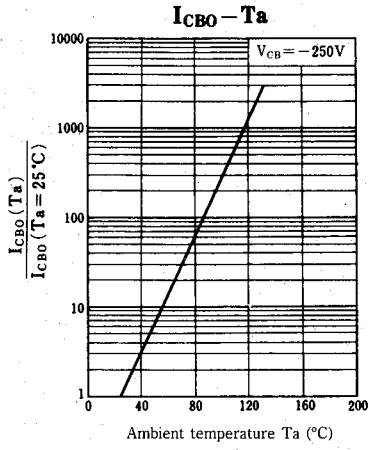
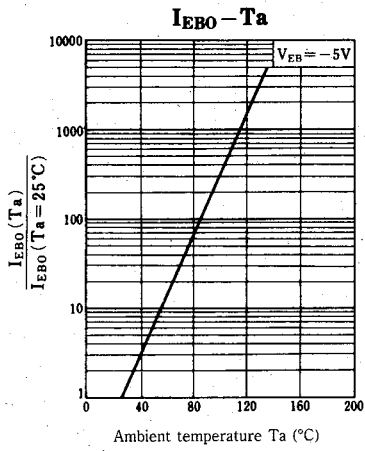
### \* $h_{FE}$ Classifications

Class	P	Q	R
$h_{FE}$	30~100	60~150	100~220

### ■ Package Dimensions







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