

2SA1111, 2SA1112

Silicon PNP Epitaxial Planar Type

AF Drivers, High Power Amplifiers
Complementary Pair with 2SC2591, 2SC2592

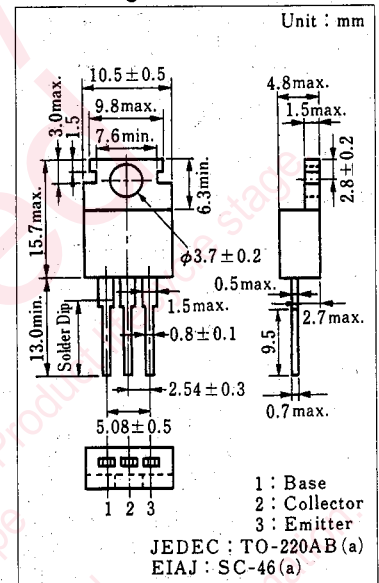
■ Features

- Very good linearity of DC current gain (h_{FE})
- High transition frequency (f_T)
- 60~100W output driver in complementary pair with 2SC2591, 2SC2592

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

Item	Symbol	Value	Unit
Collector-base voltage	2SA1111	-150	V
	2SA1112	-180	
Collector-emitter voltage	2SA1111	-150	V
	2SA1112	-180	
Emitter-base voltage	V_{EBO}	-5	V
Peak collector current	I_{CP}	-1.5	A
Collector current	I_C	-1	A
Collector power dissipation ($T_c=25^\circ\text{C}$)	P_C	20	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55~+150	$^\circ\text{C}$

■ Package Dimensions

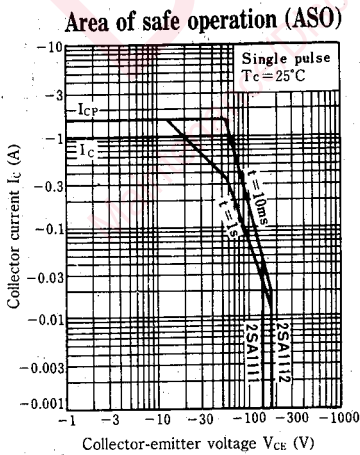
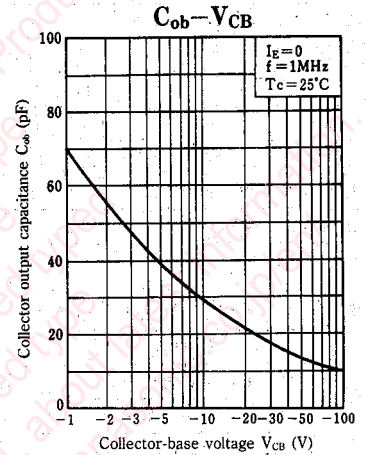
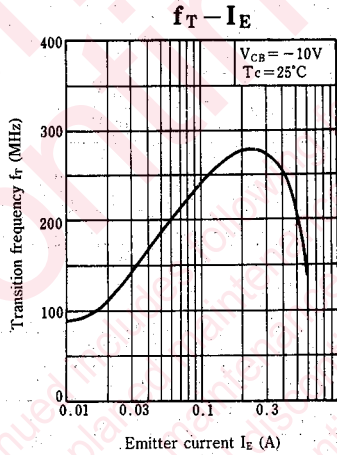
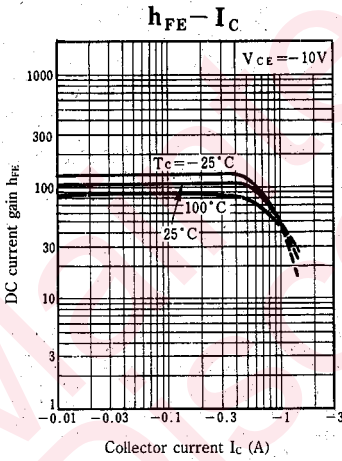
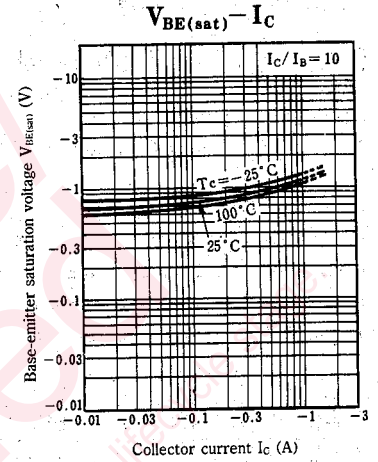
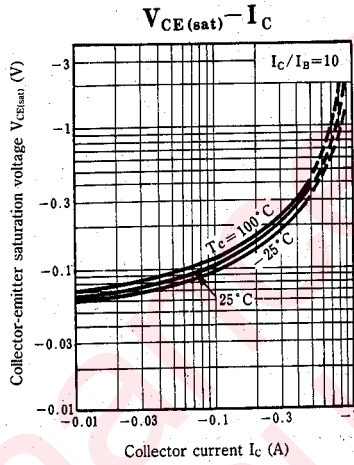
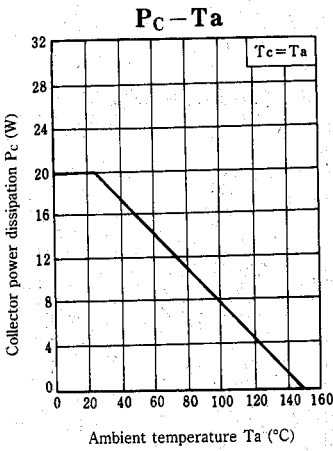


■ Electrical Characteristics ($T_c=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector-emitter voltage	2SA1111	$I_C = -100\mu\text{A}, I_B = 0$	-150			V
	2SA1112		-180			
Emitter-base voltage	V_{EBO}	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
DC current gain	h_{FE1}^*	$V_{CE} = -10\text{V}, I_C = -150\text{mA}$	65	160	330	
	h_{FE2}	$V_{CE} = -5\text{V}, I_C = -500\text{mA}$	50	100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-0.5	-2.0	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$		-1.0	-2.0	V
Transition frequency	f_T	$V_{CB} = -10\text{V}, I_E = 50\text{mA}, f = 200\text{MHz}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		30	50	pF

* h_{FE1} Classifications

Class	P	Q	R	S
h_{FE1}	65~110	90~155	130~220	185~330



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