2SC2591, 2SC2592

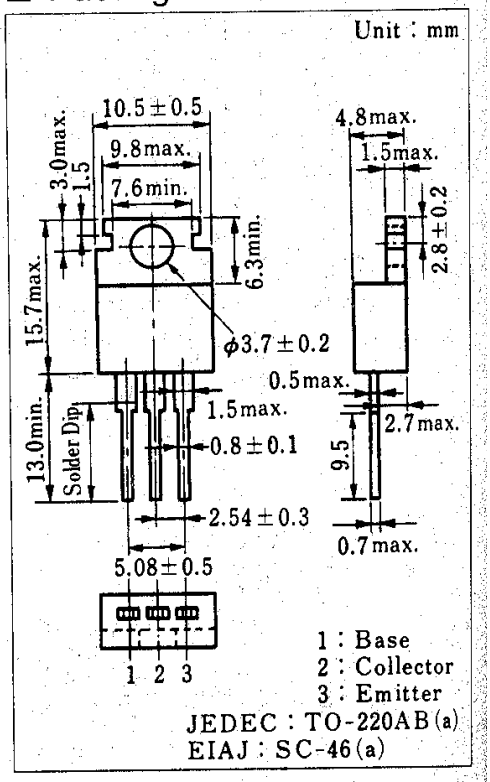
Silicon NPN Epitaxial Planar Type

AF Driver, High Power Amplifier
Complementary Pair with 2SA1111, 2SA1112

■ Features

- Very good linearity of DC current gain (h_{FE})
- High transition frequency (f_T)
- Optimum for the driver of 60~100W in complementary pair with 2SA1111 and 2SA1112

■ Package Dimensions



■ Absolute Maximum Ratings (Ta=25°C)

Item		Symbol	Value	Unit
Collector-base voltage	2SC2591	V_{CBO}	150	V
	2SC2592		180	
Collector-emitter voltage	2SC2591	V_{CEO}	150	V
	2SC2592		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 (Tc=25°C)		P_C	20	W
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55~+150	°C

■ Electrical Characteristics (Tc=25°C)

Item		Symbol	Condition	min.	typ.	max.	Unit
Collector-base voltage	2SC2591	V_{CBO}	I_C=100 μA, I_B=0	150			V
	2SC2592			180			
Emitter-base voltage		V_{EBO}	I_E=10 μA, I_C=0	5			V
DC current gain		h_{FE1}*	V_{CE}=10 V, I_C=150 mA	90	160	330	
		h_{FE2}	V_{CE}=5V, I_C=500 mA	50	100		
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=500 mA, I_B=50 mA		0.5	2	V
Base-emitter saturation voltage		$V_{BE(sat)}$	I_C=500 mA, I_B=50 mA		1	2	V
Transition frequency		f_T	V_{CB}=10V, I_E=−50mA, f=200MHz		200		MHz
Collector output capacitance		C_{ob}	V_{CB}=10 V, I_E=0, f=1 MHz		20	30	pF

*h_{FE1} Classifications

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