

2SC3944, 2SC3944A

Silicon NPN Epitaxial Planar Type

AF Driver, High Power Amplifier
Complementary Pair with 2SA1535, 2SA1535A

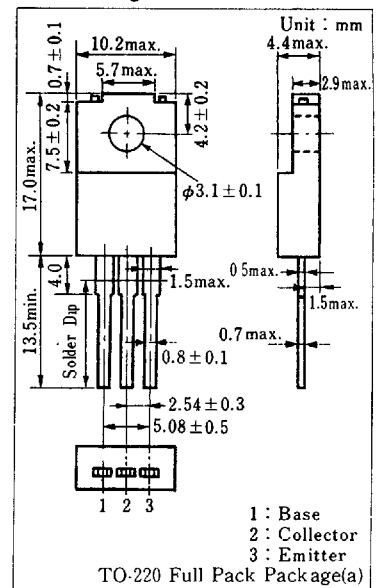
■ Features

- 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 2SA1535 and 2SA1535A

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

Item	Symbol	Value	Unit
Collector-base voltage	2SC3944	150	V
	2SC3944A	180	
Collector-emitter voltage	2SC3944	150	V
	2SC3944A	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	$T_c=25^\circ\text{C}$	15	W
	$T_a=25^\circ\text{C}$	2.0	
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 cutoff current	I_{CBO}	$V_{CB}=150\text{V}, I_E=0$			10	μA
		$V_{CB}=180\text{V}, I_E=0$			10	
Collector-base voltage	V_{CEO}	$I_C=1\text{mA}, I_B=0$	150			V
			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	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$		1	2	V
Transition frequency	f_T	$V_{CB}=10\text{V}, I_C=50\text{mA}, f=10\text{MHz}$		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	95~155	130~220	185~330

