

2SA1535, 2SA1535A

Silicon PNP epitaxial planar type

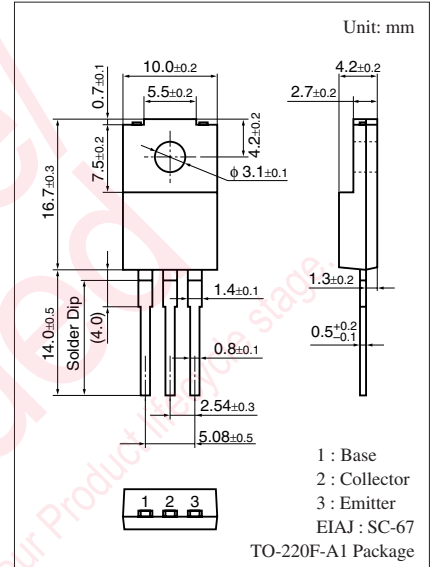
For low-frequency driver and high power amplification
Complementary to 2SC3944, 2SC3944A

■ Features

- Excellent collector current I_C characteristics of forward current transfer ratio h_{FE}
- High transition frequency f_T
- A complementary pair with 2SC3944 and 2SC3944A, is optimum for the driver-stage of a 60 W to 100 W output amplifier

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	2SA1535	-150	V
	2SA1535A	-180	
Collector-emitter voltage (Base open)	2SA1535	-150	V
	2SA1535A	-180	
Emitter-base voltage (Collector open)	V_{EBO}	-5	V
Collector current	I_C	-1	A
Peak collector current	I_{CP}	-1.5	A
Collector power dissipation	$T_C = 25^\circ\text{C}$	15	W
		2	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



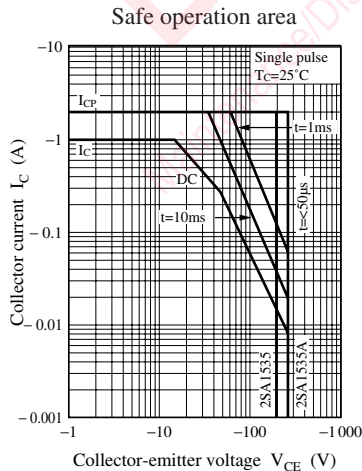
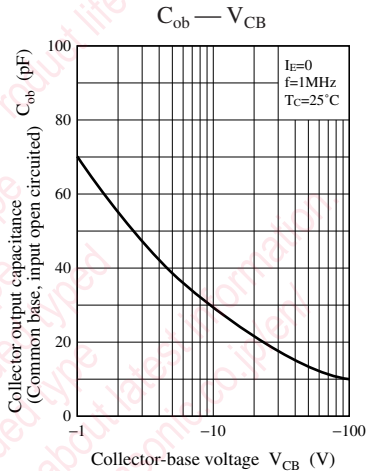
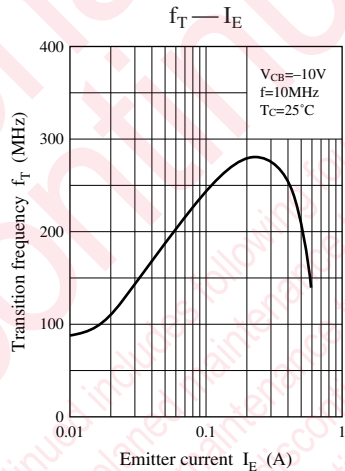
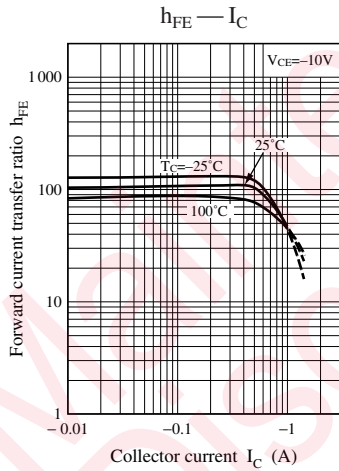
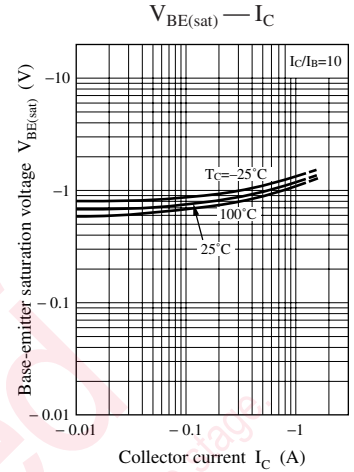
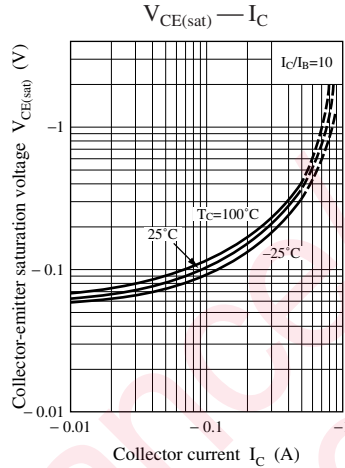
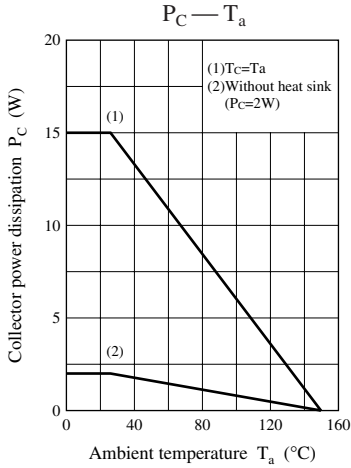
■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	2SA1535	$I_C = -100 \mu\text{A}, I_B = 0$	-150			V
	2SA1535A	$I_C = -100 \mu\text{A}, I_B = 0$	-180			
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10 \mu\text{A}, I_C = 0$	-5			V
Collector-base cutoff current (Emitter open)	2SA1535	$V_{CB} = -150 \text{ V}, I_E = 0$			-10	μA
Forward current transfer ratio	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	$V_{CE} = -10 \text{ V}, I_C = -50 \text{ mA}, f = 10 \text{ MHz}$		200		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		30	50	pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Rank classification

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



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