

2SA1535, 2SA1535A

Silicon PNP epitaxial planar type

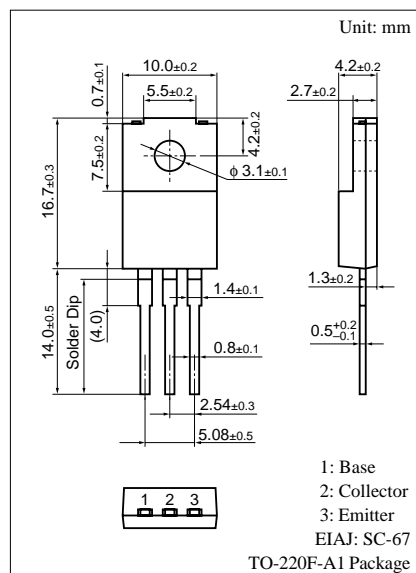
For low-frequency driver and high power amplification
Complementary to 2SC3944 and 2SC3944A

■ Features

- Excellent current I_C characteristics of forward current transfer ratio h_{FE} vs. collector
- 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 $T_C = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector to base voltage	2SA1535	V_{CBO}	V
	2SA1535A	–180	
Collector to emitter voltage	2SA1535	V_{CEO}	V
	2SA1535A	–180	
Emitter to 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	W
	$T_a = 25^\circ\text{C}$	2.0	
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	–55 to +150	$^\circ\text{C}$

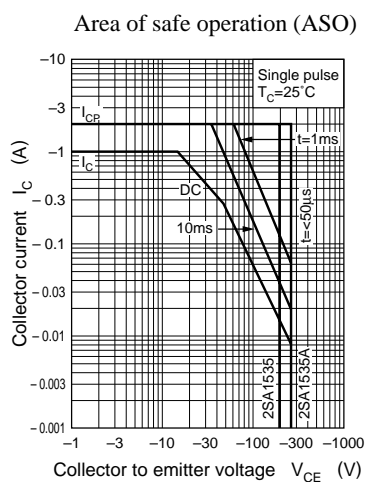
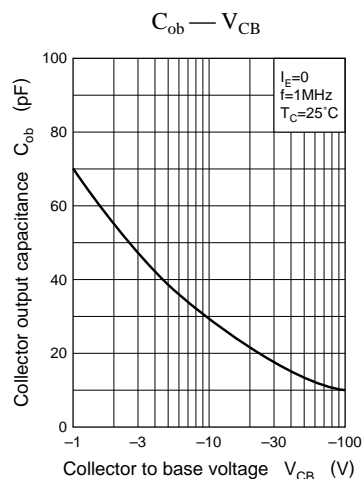
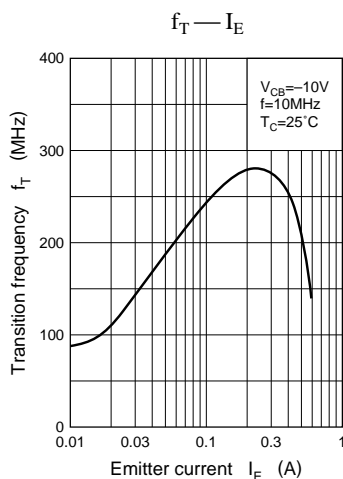
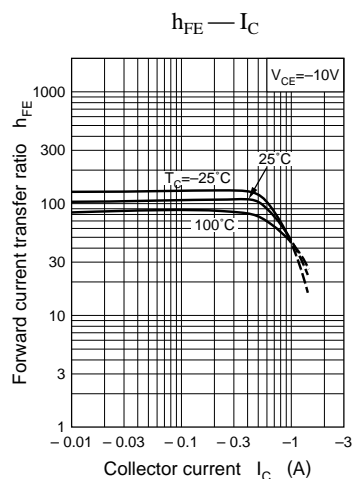
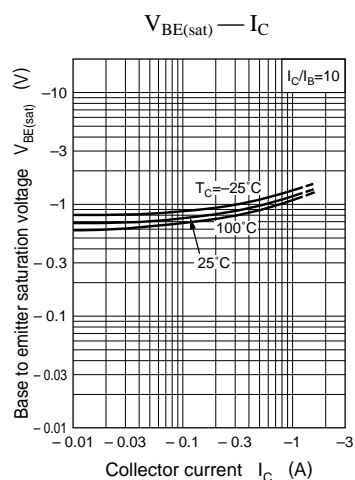
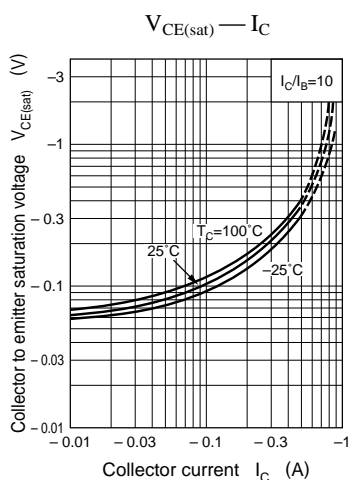
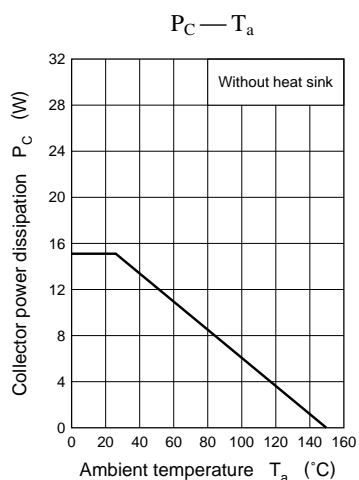


■ Electrical Characteristics $T_C = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = -150\text{ V}, I_E = 0$			–10	μA
Collector to emitter voltage	2SA1535	$I_C = -1\text{ mA}, I_B = 0$ $I_C = -100\text{ }\mu\text{A}, I_B = 0$	–150			V
	2SA1535A		–180			
Emitter to base voltage	V_{EBO}	$I_E = -10\text{ }\mu\text{A}, I_C = 0$	–5			V
Forward current transfer ratio	h_{FE1}^*	$V_{CE} = -10\text{ V}, I_C = -150\text{ mA}$	90	160	330	
	h_{FE2}	$V_{CE} = -5\text{ V}, I_C = -500\text{ mA}$	50	100		
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{ mA}, I_B = -50\text{ mA}$		–0.5	–2.0	V
Base to 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	$V_{CB} = -10\text{ V}, I_C = -50\text{ mA}, f = 10\text{ MHz}$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$		30	50	pF

Note) *: Rank classification

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



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