

2SC1567, 2SC1567A

Silicon NPN epitaxial planar type

For low-frequency high power driver

Complementary to 2SA0794 and 2SA0794A

■ Features

- High collector to emitter voltage V_{CEO}
- Optimum for the driver stage of low-frequency and 40 W to 100 W output amplifier
- TO-126B package which requires no insulation plate for installation to the heat sink

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

Parameter	Symbol	Rating	Unit
Collector to base voltage	2SC1567	100	V
	2SC1567A	120	
Collector to emitter voltage	2SC1567	100	V
	2SC1567A	120	
Emitter to base voltage	V_{EBO}	5	V
Peak collector current	I_{CP}	1	A
Collector current	I_C	0.5	A
Collector power dissipation *	P_C	1.2	W
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

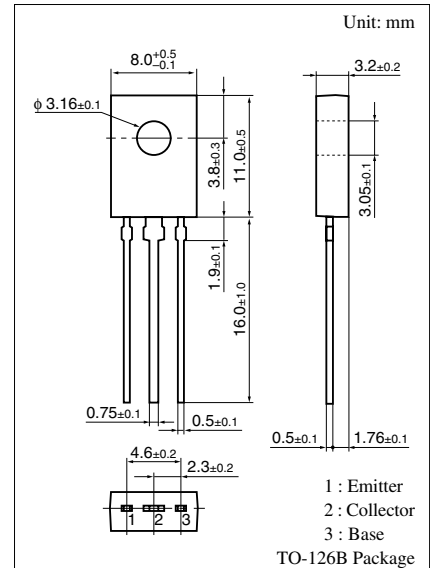
Note) *: Without heat sink

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

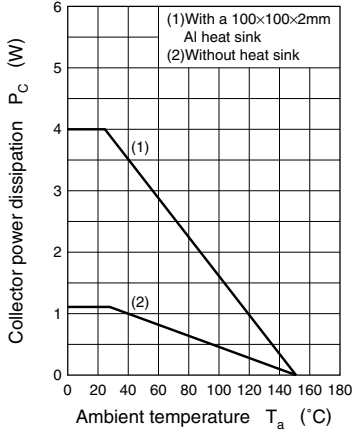
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector to emitter voltage	2SC1567	$I_C = 100 \mu\text{A}, I_B = 0$	100			V
	2SC1567A		120			
Emitter to base voltage	V_{EBO}	$I_E = 1 \mu\text{A}, I_C = 0$	5			V
Forward current transfer ratio	h_{FE1} *	$V_{CE} = 10 \text{ V}, I_C = 150 \text{ mA}$	65	130	330	
	h_{FE2}	$V_{CE} = 5 \text{ V}, I_C = 500 \text{ mA}$	50	100		
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$		0.2	0.4	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$		0.85	1.2	V
Transition frequency	f_T	$V_{CB} = 10 \text{ V}, I_E = -50 \text{ mA}, f = 200 \text{ MHz}$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		11	20	pF

Note) *: Rank classification

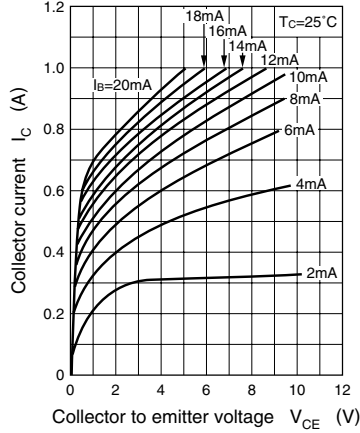
Rank	R	S
h_{FE1}	130 to 220	185 to 330



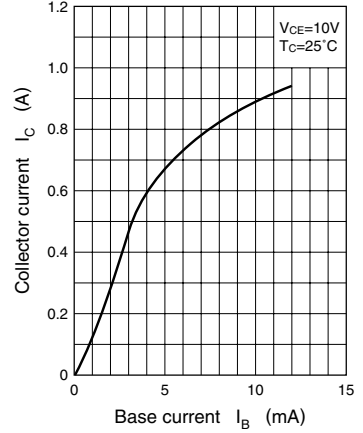
$P_C - T_a$



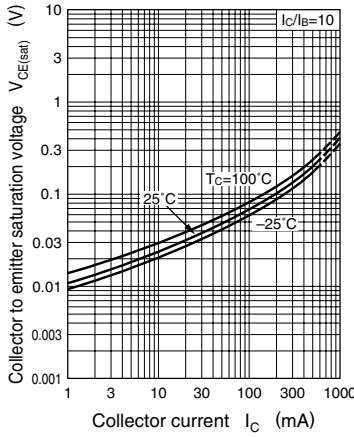
$I_C - V_{CE}$



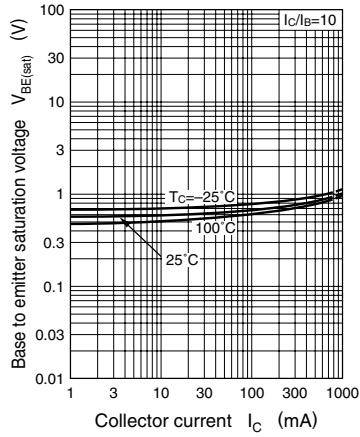
$I_C - I_B$



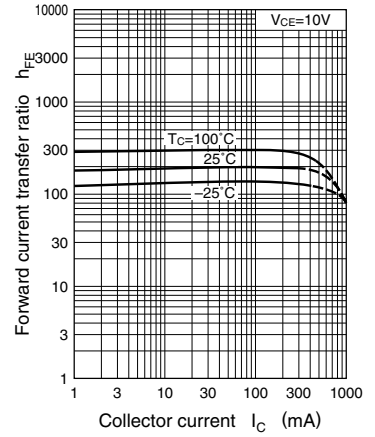
$V_{CE(sat)} - I_C$



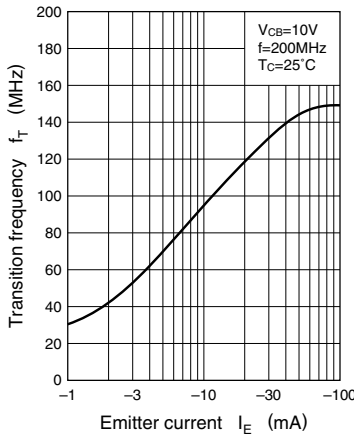
$V_{BE(sat)} - I_C$



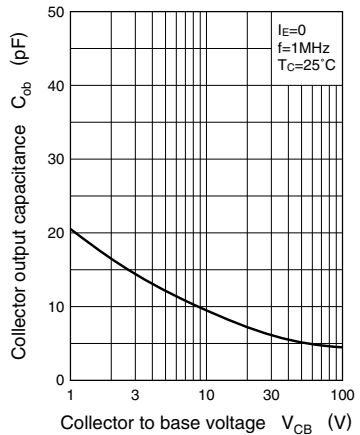
$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$



$I_{CEO} - T_a$

