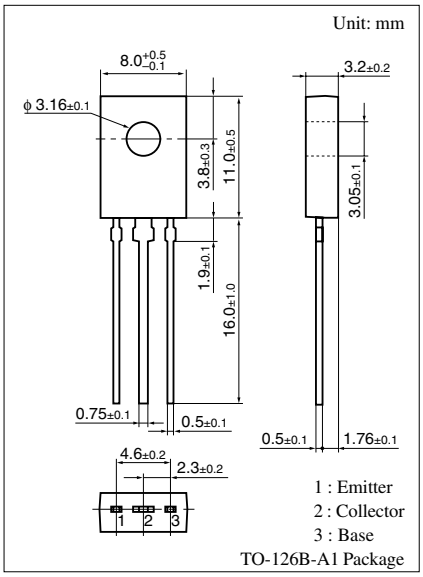
2SC1567, 2SC1567A

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 $T_C = 25°C$

Parameter		Symbol	Rating	Unit
Collector to base voltage	2SC1567	V_{CBO}	100	V
	2SC1567A		120	
Collector to emitter voltage	2SC1567	V_{CEO}	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	°C
Storage temperature		T_{stg}	−55 to +150	°C

Note) ∗: Without heat sink

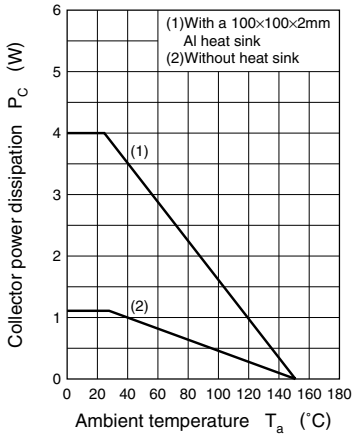
■ Electrical Characteristics $T_C = 25°C$

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

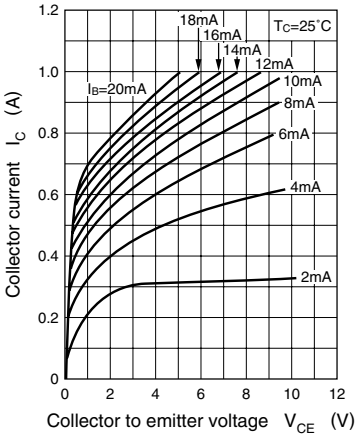
Note) ∗: Rank classification

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

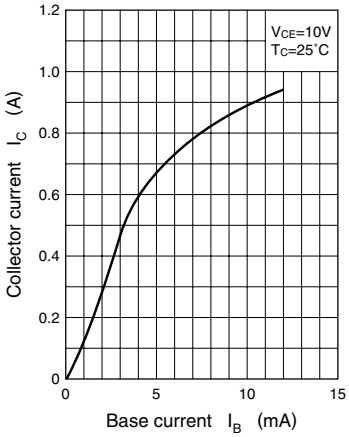
P_C — T_a



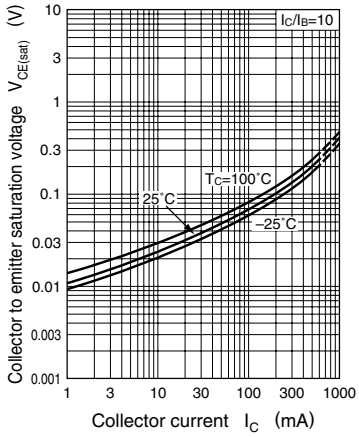
I_C — V_{CE}



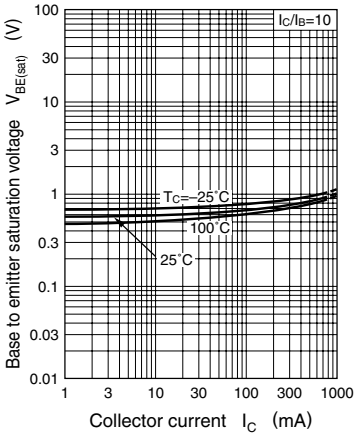
I_C — I_B



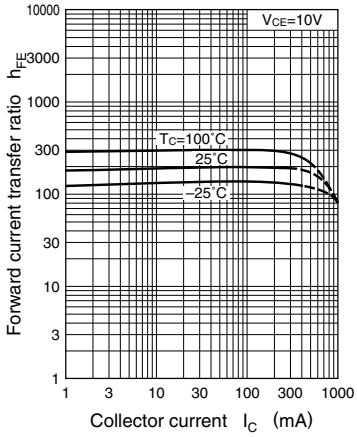
$V_{CE(sat)}$ — I_C



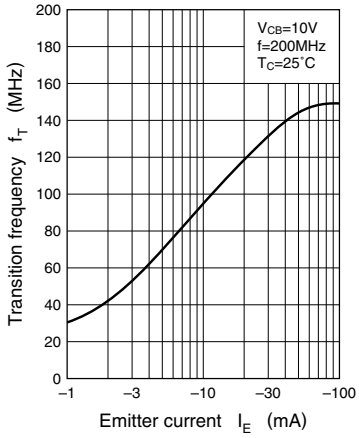
$V_{BE(sat)}$ — I_C



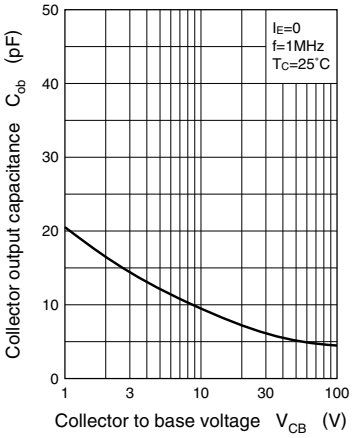
h_{FE} — I_C



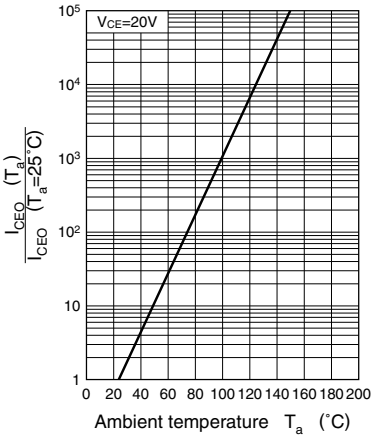
f_T — I_E



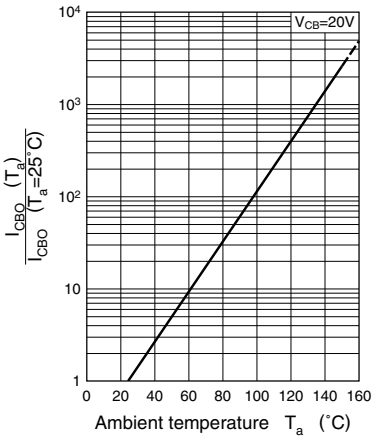
C_{ob} — V_{CB}



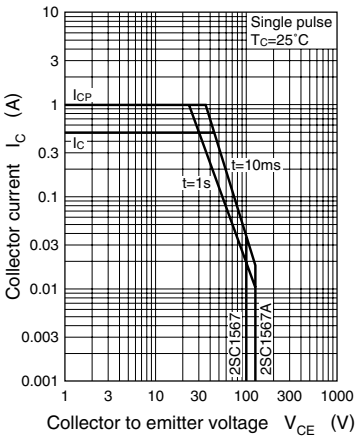
I_{CEO} — T_a



I_{CBO} — T_a



Area of safe operation (ASO)



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