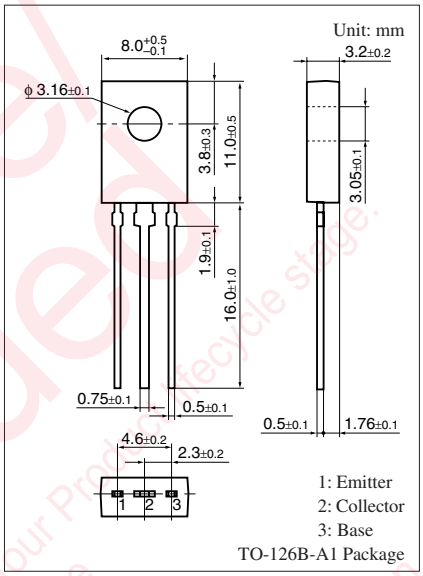
2SC1568

Silicon NPN epitaxial planar type

For low-voltage type medium output power amplification
Complementary to 2SA0900



■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Satisfactory operation performances and high efficiency with a low-voltage power supply
- TO-126B package which incorporates a unique construction enabling installation to the heat sink without using insulation parts

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	18	V
Collector-emitter voltage (Base open)	V_{CEO}	18	V
Emitter-base voltage (Collector open)	V_{EBO}	5	V
Collector current	I_C	1	A
Peak collector current	I_{CP}	2	A
Collector power dissipation	P_C	1.2	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

■ Electrical Characteristics $T_a = 25°C \pm 3°C$

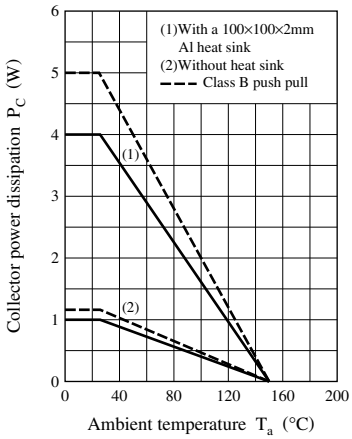
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	I_C = 10 µA, I_E = 0	18			V
Collector-emitter voltage (Base open)	V_{CEO}	I_C = 1 mA, I_B = 0	18			V
Emitter-base voltage (Collector open)	V_{EBO}	I_E = 10 µA, I_C = 0	5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	V_{CB} = 10 V, I_E = 0			1	µA
Collector-emitter cutoff current (Base open)	I_{CEO}	V_{CE} = 18 V, I_B = 0			10	µA
Forward current transfer ratio	h_{FE1} *	V_{CE} = 2 V, I_C = 500 mA	90		280	—
	h_{FE2}	V_{CE} = 2 V, I_C = 1.5 A	50	100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 1 A, I_B = 50 mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C = 500 mA, I_B = 50 mA			1.2	V
Transition frequency	f_T	V_{CB} = 6 V, I_E = −50 mA, f = 200 MHz		150		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	V_{CB} = 6 V, I_E = 0, f = 1 MHz		12		pF

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

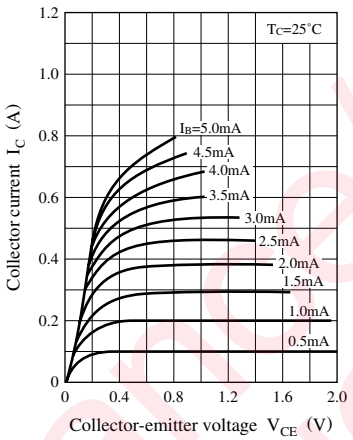
Rank	Q	R	S
h_{FE1}	90 to 155	130 to 210	180 to 280

Maintenance/ Discontinued
Maintenance/discontinued includes following four Product lifecycle stage.
1. Planned maintenance type
2. Maintenance type
3. Planned discontinued typed
4. Discontinued type
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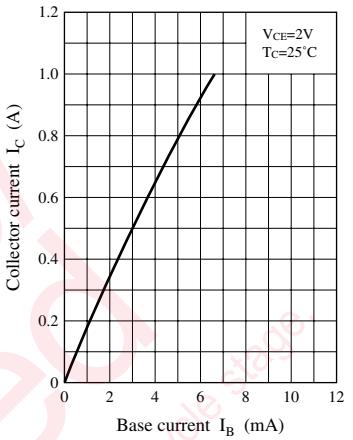
P_C — T_a



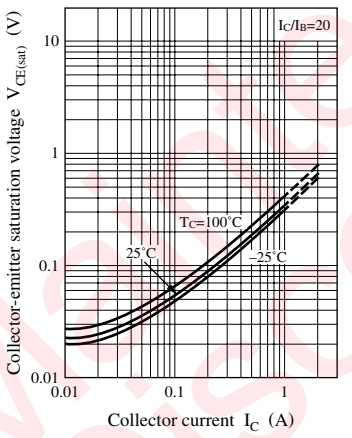
I_C — V_{CE}



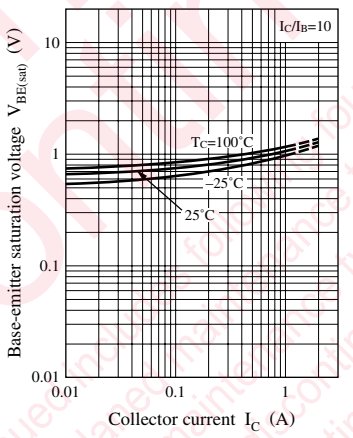
I_C — I_B



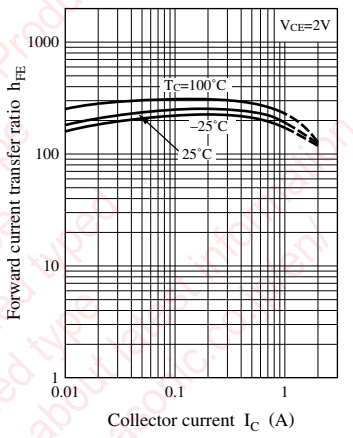
$V_{CE(sat)}$ — I_C



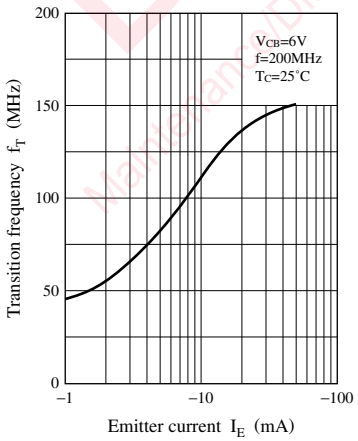
$V_{BE(sat)}$ — I_C



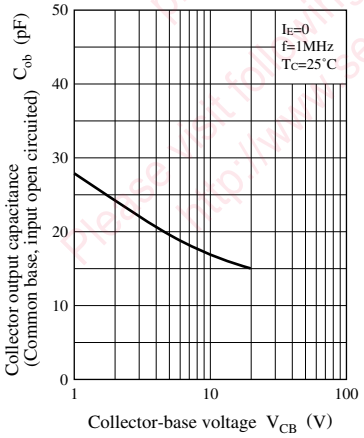
h_{FE} — I_C



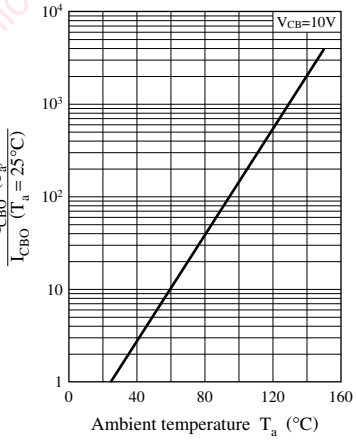
f_T — I_E



C_{ob} — V_{CB}

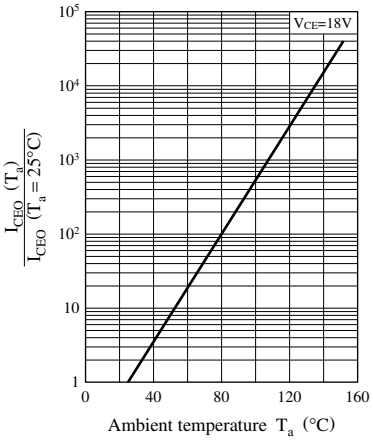


I_{CBO} — T_a

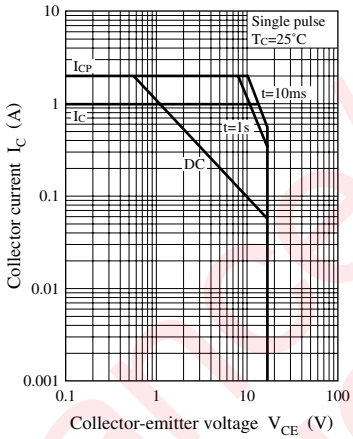


Maintenance/Discontinued
Maintenance/discontinued products are planned for discontinuation. Please visit our website for the latest information.

I_{CEO} — T_a



Safe operation area



Maintenance/Discontinued
Discontinued includes following four Product lifecycle stage.
planed maintenance type
maintenance type
planed discontinued typed
discontinued type
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Maintenance/Discontinued
Maintenance/Discontinued includes following our product's life cycle stage.
planed maintenance type
maintenance type
planed discontinued type
discontinued type
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