

# 2SC1568

## Silicon NPN epitaxial planar type

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

### ■ Features

- Low collector to 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 $T_C = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector to base voltage	$V_{CBO}$	18	V
Collector to emitter voltage	$V_{CEO}$	18	V
Emitter to base voltage	$V_{EBO}$	5	V
Peak collector current	$I_{CP}$	2	A
Collector current	$I_C$	1	A
Collector power dissipation *	$P_C$	1.2	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

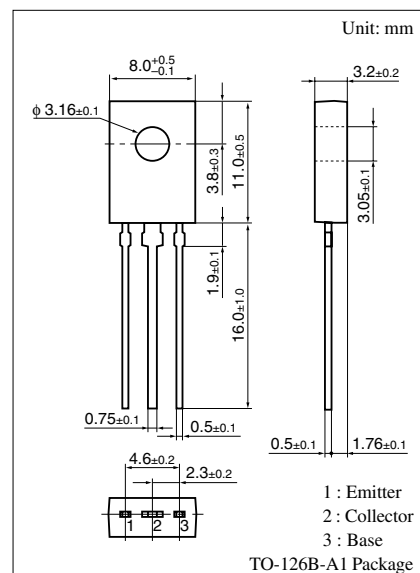
Note) \*: Without heat sink

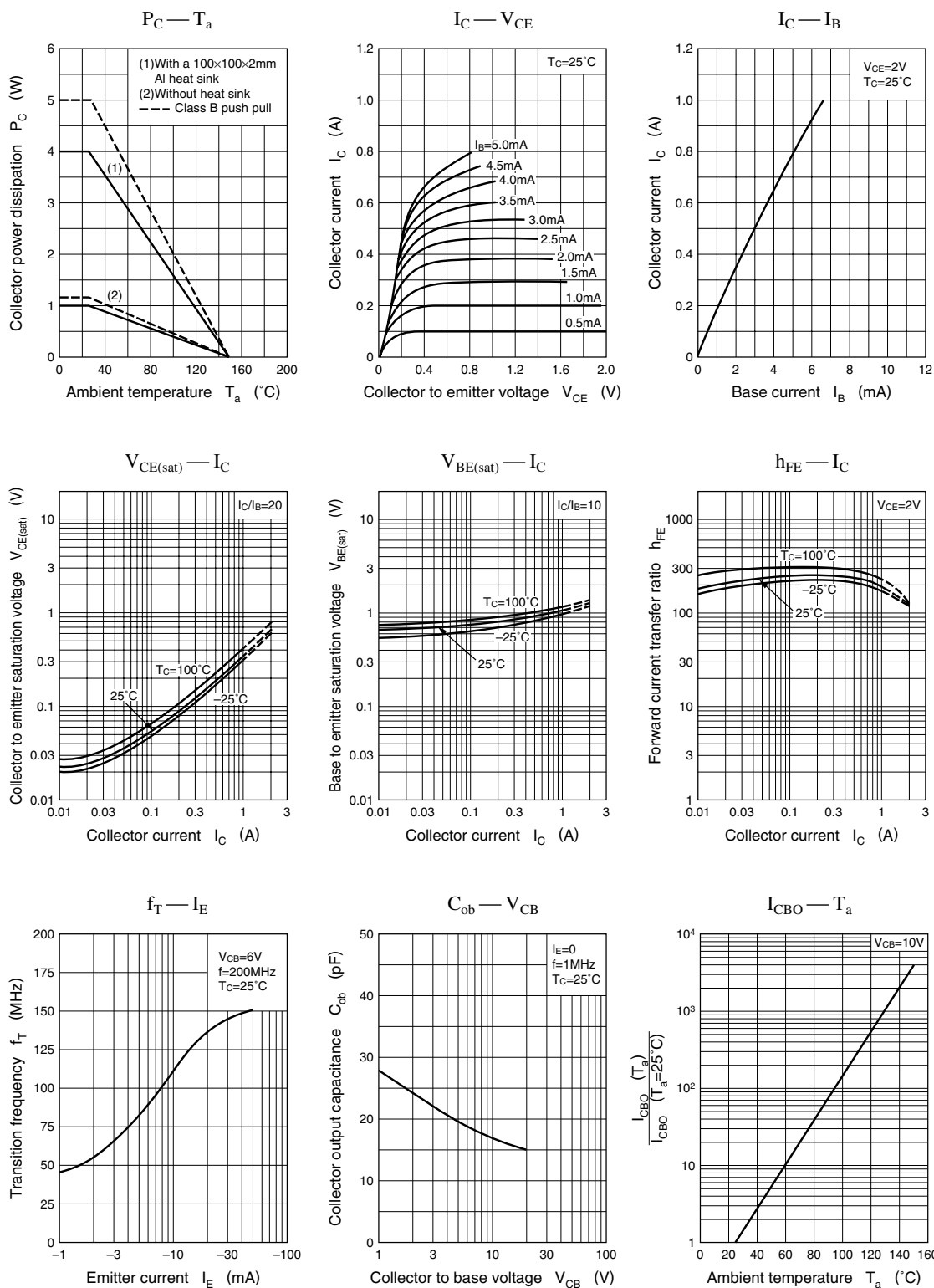
### ■ Electrical Characteristics $T_C = 25^\circ\text{C}$

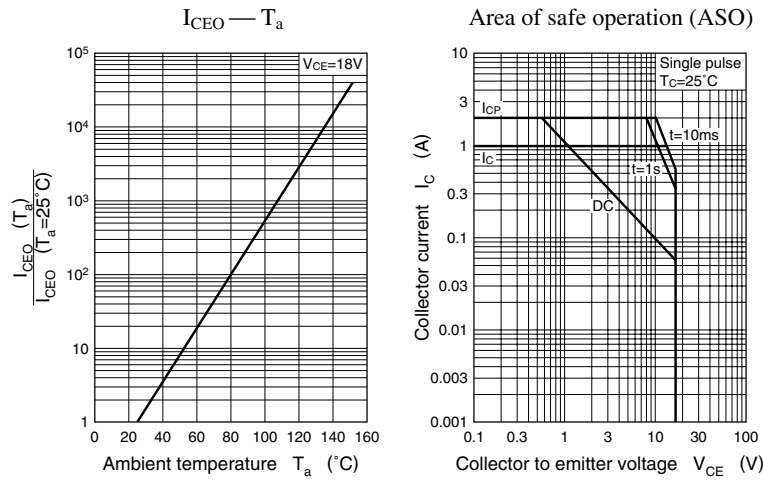
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 10\text{ V}, I_E = 0$			1	$\mu\text{A}$
	$I_{CEO}$	$V_{CE} = 18\text{ V}, I_B = 0$			10	$\mu\text{A}$
Collector to base voltage	$V_{CBO}$	$I_C = 10\text{ }\mu\text{A}, I_E = 0$	18			V
Collector to emitter voltage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

Note) \*: Rank classification

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







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