

2SC1568

Silicon NPN epitaxial planar type

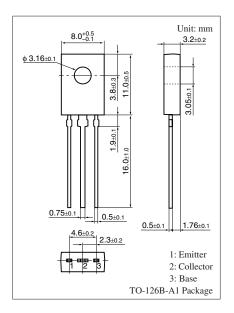
For low-voltage type medium output power amplification Complementary to 2SA0900

■ Features

- \bullet Low collector-emitter saturation voltage $V_{\text{CE}(\text{sat})}$
- Satisfactory operation performances and high efficiency with a lowvoltage 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 ± 3 °C

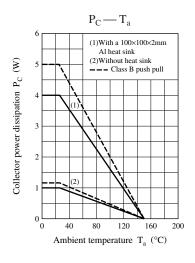
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_C = 10 \mu\text{A}, I_E = 0$	18			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_C = 1 \text{ mA}, I_B = 0$	18			V
Emitter-base voltage (Collector open)	V _{EBO}	$I_E = 10 \ \mu A, I_C = 0$	5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 10 \text{ V}, I_{E} = 0$			1	μΑ
Collector-emitter cutoff current (Base open)	I _{CEO}	$V_{CE} = 18 \text{ V}, I_{B} = 0$			10	μΑ
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-emitter saturation voltage	V _{CE(sat)}	$I_C = 1 \text{ A}, I_B = 50 \text{ mA}$			0.5	V
Base-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
(Common base, input open circuited)						

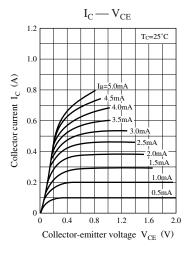
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

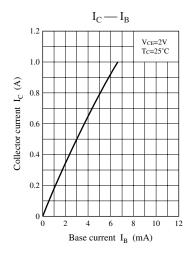
2. *: Rank classification

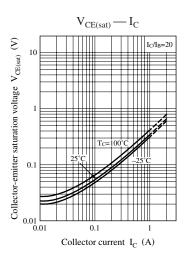
Rank	Q	R	S
h _{FE1}	90 to 155	130 to 210	180 to 280

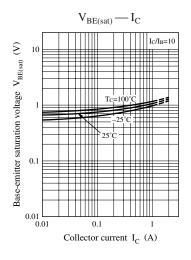
Publication date: January 2003 SJD00093BED 1

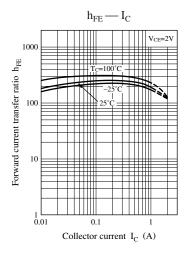


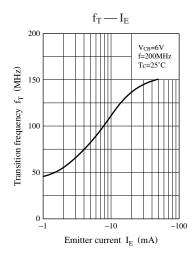


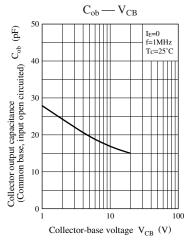


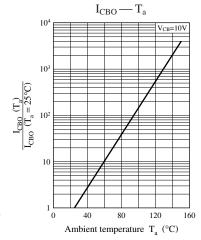




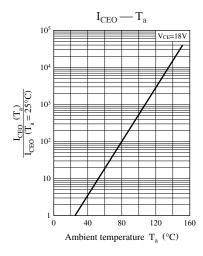


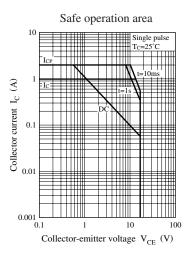






2 SJD00093BED





SJD00093BED 3

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