

# 2SB0767 (2SB767)

## Silicon PNP epitaxial planar type

For low-frequency output amplification

Complementary to 2SD0875 (2SD875)

### ■ Features

- Large collector power dissipation  $P_C$
- High collector-emitter voltage (Base open)  $V_{CEO}$
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	-80	V
Collector-emitter voltage (Base open)	$V_{CEO}$	-80	V
Emitter-base voltage (Collector open)	$V_{EBO}$	-5	V
Peak collector current	$I_{CP}$	-1	A
Collector current	$I_C$	-0.5	A
Collector power dissipation *	$P_C$	1	W
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

Note) \*: Print circuit board: Copper foil area of  $1\text{ cm}^2$  or more, and the board thickness of 1.7 mm for the collector portion.

### ■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = -20\text{ V}, I_E = 0$			-0.1	$\mu\text{A}$
Collector-base voltage (Emitter open)	$V_{CBO}$	$I_C = -10\ \mu\text{A}, I_E = 0$	-80			V
Collector-emitter voltage (Base open)	$V_{CEO}$	$I_C = -100\ \mu\text{A}, I_B = 0$	-80			V
Emitter-base voltage (Collector open)	$V_{EBO}$	$I_E = -10\ \mu\text{A}, I_C = 0$	-5			V
Forward current transfer ratio *1	$h_{FE1}$ *2	$V_{CE} = -10\text{ V}, I_C = -150\text{ mA}$	90		220	
	$h_{FE2}$	$V_{CE} = -5\text{ V}, I_C = -500\text{ mA}$	50	100		
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = -300\text{ mA}, I_B = -30\text{ mA}$		-0.2	-0.4	V
Base-emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = -300\text{ mA}, I_B = -30\text{ mA}$		-0.85	-1.20	V
Transition frequency	$f_T$	$V_{CB} = -10\text{ V}, I_E = 50\text{ mA}, f = 200\text{ MHz}$		120		MHz
Collector output capacitance (Common base, input open circuited)	$C_{ob}$	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$		20	30	pF

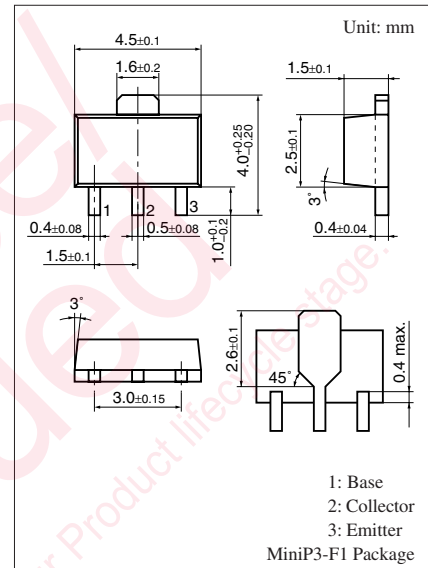
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. \*1: Pulse measurement

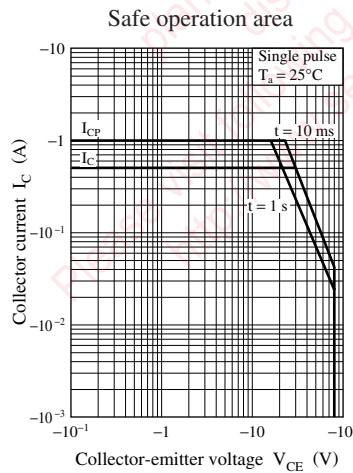
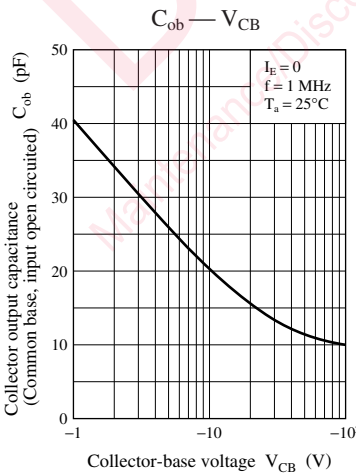
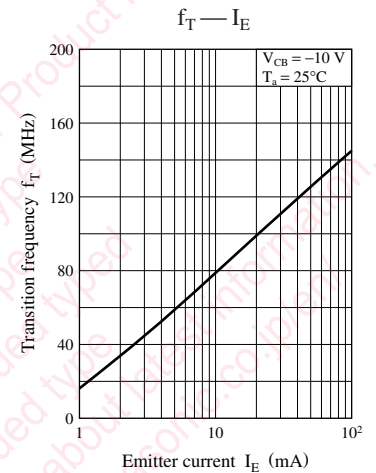
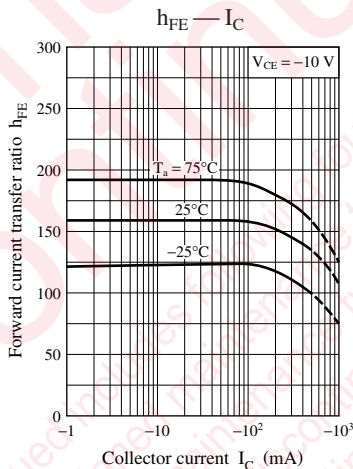
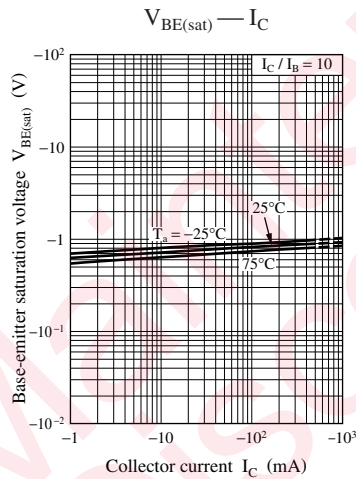
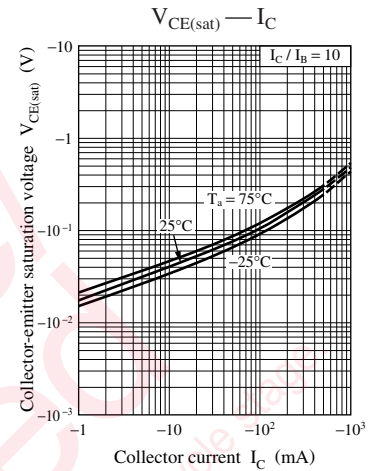
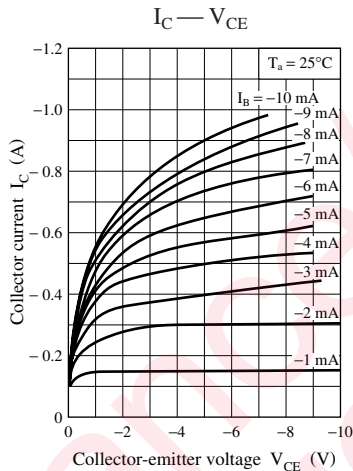
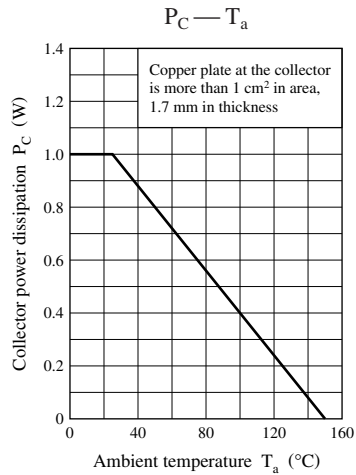
\*2: Rank classification

Rank	Q	R
$h_{FE1}$	90 to 155	130 to 220

Note) The part numbers in the parenthesis show conventional part number.



Marking Symbol: C



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