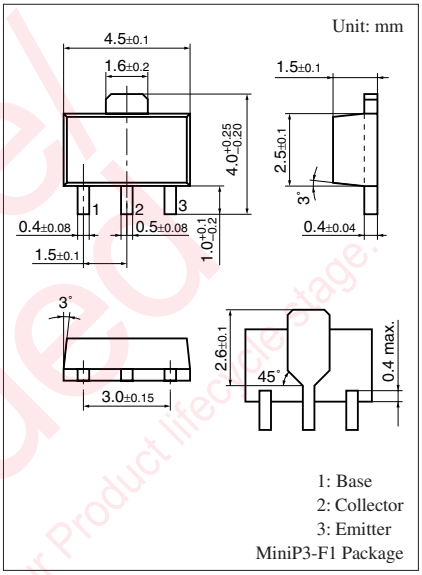
2SB0767 (2SB767)

Silicon PNP epitaxial planar type

For low-frequency output amplification
Complementary to 2SD0875 (2SD875)



Marking Symbol: C

■ 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 $T_a = 25°C$

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	°C
Storage temperature	T_{stg}	−55 to +150	°C

Note) ∗: Print circuit board: Copper foil area of 1 cm² or more, and the board thickness of 1.7 mm for the collector portion.

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

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

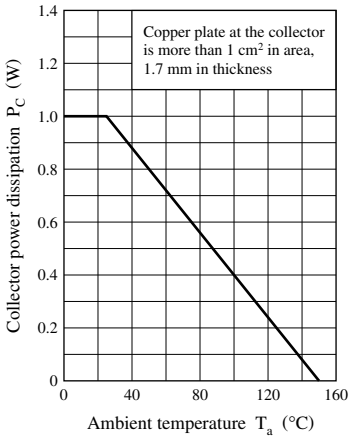
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. ∗1: Pulse measurement
∗2: Rank classification

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

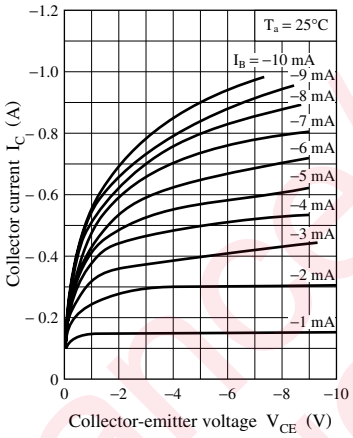
Note) The part numbers in the parenthesis show conventional part number.

Maintenance/Discontinued
This product includes following four Product lifecycle stage.
Planned maintenance type
Maintenance type
Planned discontinued typed
Discontinued type
Please refer following URL about latest information.
http://www.semicon.panasonic.co.jp/en/

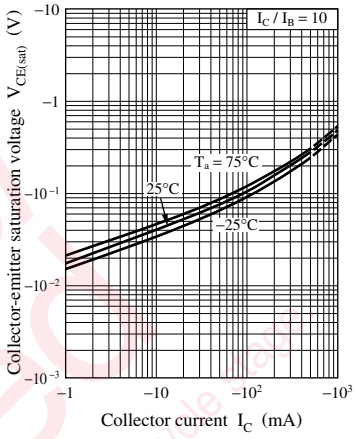
P_C — T_a



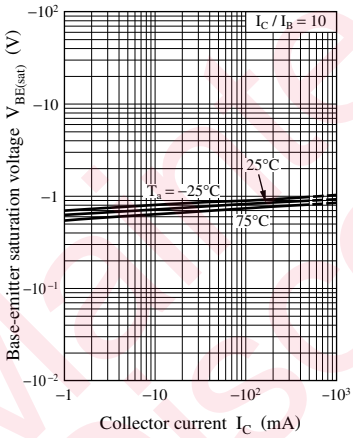
I_C — V_{CE}



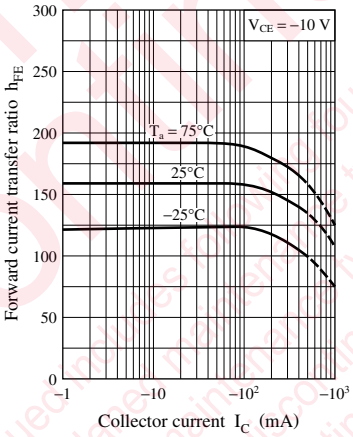
$V_{CE(sat)}$ — I_C



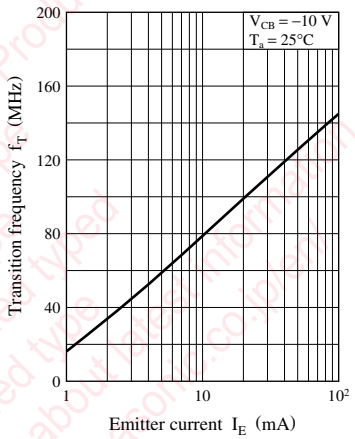
$V_{BE(sat)}$ — I_C



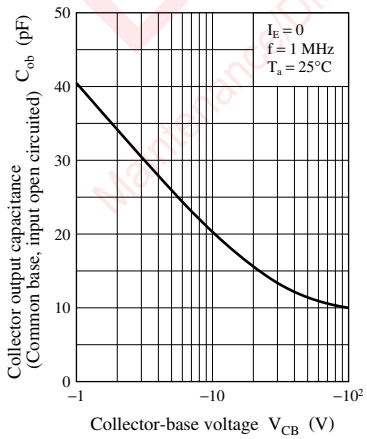
h_{FE} — I_C



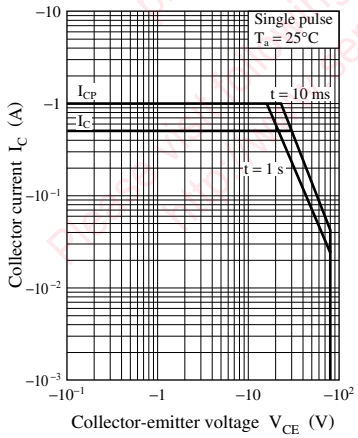
f_T — I_E



C_{ob} — V_{CB}



Safe operation area



Maintenance/Discontinued
Discontinued
Maintenance/Discontinued
Please visit our Product lifecycle (PLC) information page to find out the planned discontinued type.
For discontinued type, please visit the following URL about latest information.
https://industrial.panasonic.com/ac/e/semicon.panasonic.co.jp/ed/

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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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http://www.semicon.panasonic.co.jp/en/