2SB0789G

Silicon PNP epitaxial planar type

For low-frequency driver amplification

■ Features

- High collector-emitter voltage (Base open) V_{CEO}
- Large collector power dissipation P_C

■ Package

- Code
  MiniP3-F2
- Pin Name
  1: Base
  2: Collector
  3: Emitter

■ Marking Symbol: E

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	−120	V
Collector-emitter voltage (Base open)	V_{CEO}	−120	V
Emitter-base voltage (Collector open)	V_{EBO}	−5	V
Collector current	I_C	− 0.5	A
Peak collector current	I_{CP}	−1	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 cm^2 or more, and the board thickness of 1.7 mm for the collector portion.

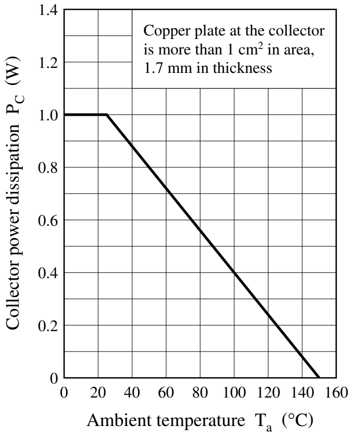
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -100\ \mu A$, $I_B = 0$	−120			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10\ \mu A$, $I_C = 0$	−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			
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = -500$ mA, $I_B = -50$ mA		− 0.2	− 0.6	V
Base-emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = -500$ mA, $I_B = -50$ 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			30	pF

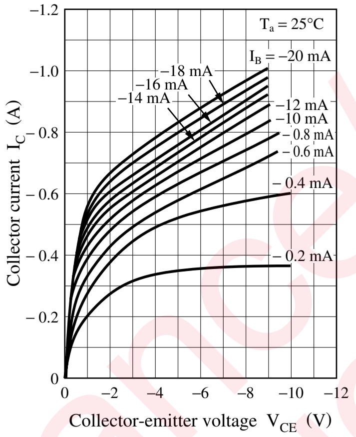
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *1: Pulse measurement
*2: Rank classification

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

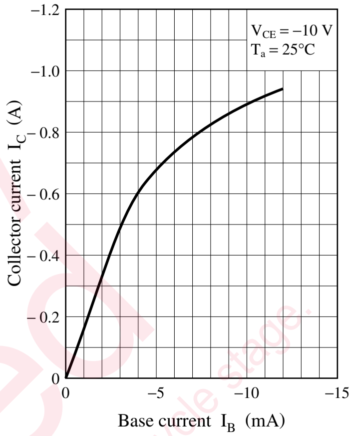
P_C — T_a



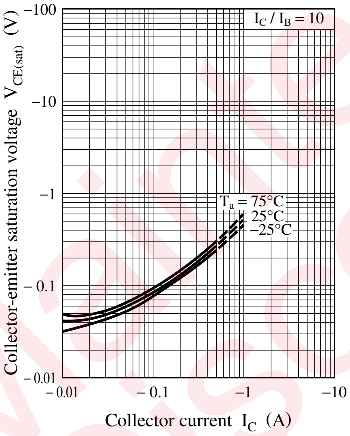
I_C — V_{CE}



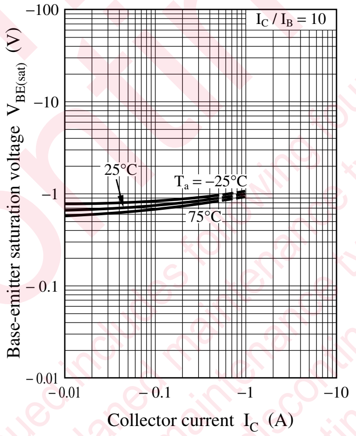
I_C — I_B



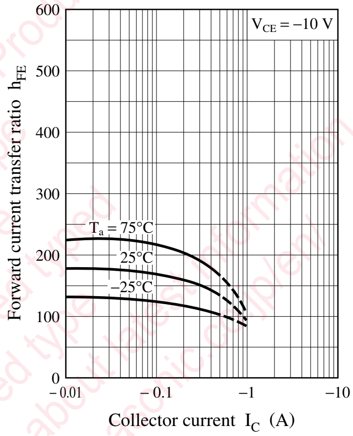
$V_{CE(sat)}$ — I_C



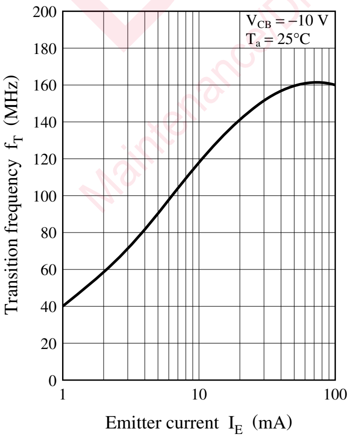
$V_{BE(sat)}$ — I_C



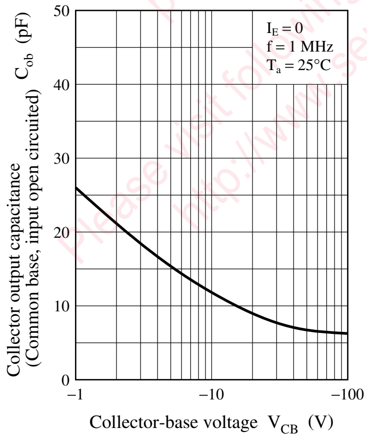
h_{FE} — I_C



f_T — I_E

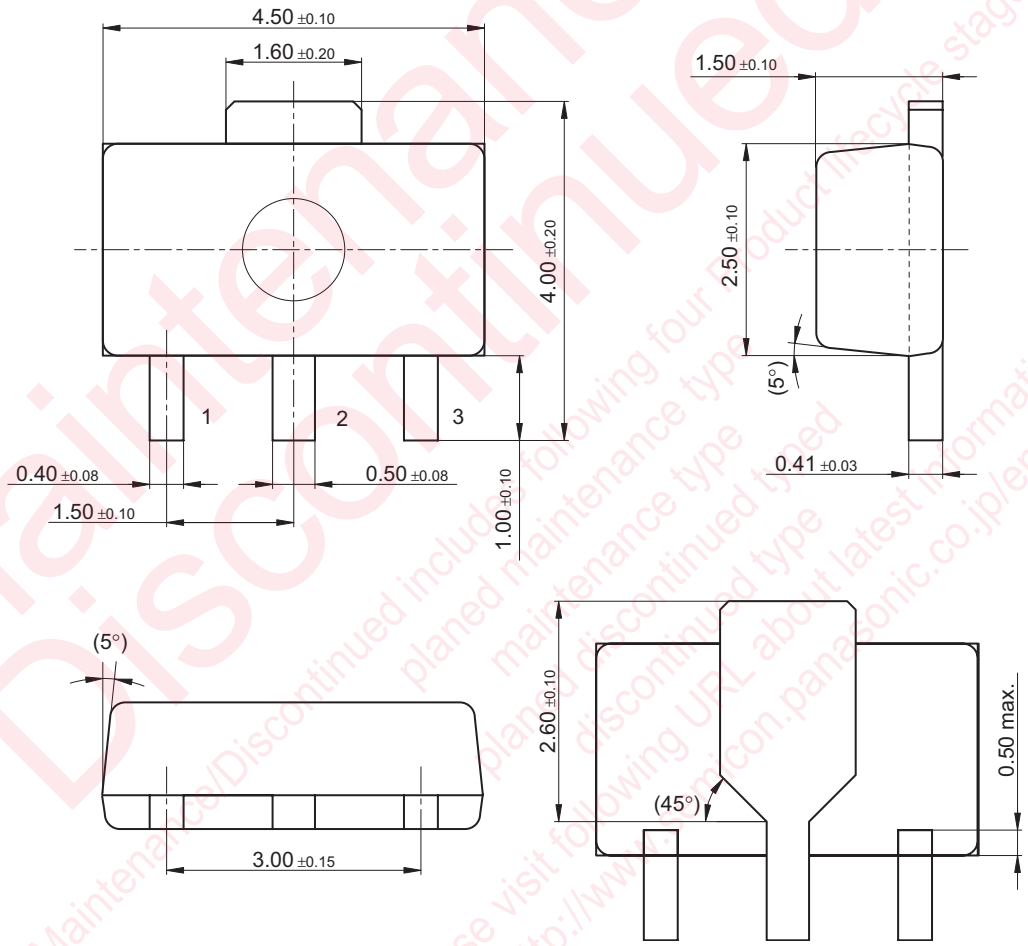


C_{ob} — V_{CB}



MiniP3-F2

Unit: mm



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