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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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DSA7504

Silicon PNP epitaxial planar type

For low frequency amplification

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Halogen-free / RoHS compliant
(EU RoHS / UL-94 V-0 / MSL: Level 1 compliant)

■ Marking Symbol: 4F

■ Packaging

DSA7504×0L Embossed type (Thermo-compression sealing): 1 000 pcs / reel (standard)

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	-30	V
Collector-emitter voltage (Base open)	V_{CEO}	-20	V
Emitter-base voltage (Collector open)	V_{EBO}	-7	V
Collector current	I_C	-4	A
Peak collector current	I_{CP}	-7	A
Collector power dissipation *1	P_C	1	W
Junction temperature	T_j	150	°C
Operating ambient temperature	T_{opr}	-40 to +85	°C
Storage temperature	T_{stg}	-55 to +150	°C

Note) *1: Printed circuit board: Copper foil area of 1 cm² or more, and the board thickness of 1.7 mm for the collector portion
Absolute maximum rating without heat sink for P_C is 0.5 W

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

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = -10 \mu\text{A}, I_E = 0$	-30			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = -1 \text{ mA}, I_B = 0$	-20			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = -10 \mu\text{A}, I_C = 0$	-7			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = -30 \text{ V}, I_E = 0$			-0.1	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = -7 \text{ V}, I_C = 0$			-0.1	
Forward current transfer ratio *1, 2	h_{FE}	$V_{CE} = -2 \text{ V}, I_C = -2 \text{ A}$	120		315	—
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = -3 \text{ A}, I_B = -0.1 \text{ A}$		-0.7	-1.0	V
Transition frequency	f_T	$V_{CE} = -6 \text{ V}, I_C = -50 \text{ mA}$		180		MHz
Collector output capacitance (Common base, input open circuited)	C_{ob}	$V_{CB} = -20 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		30		pF

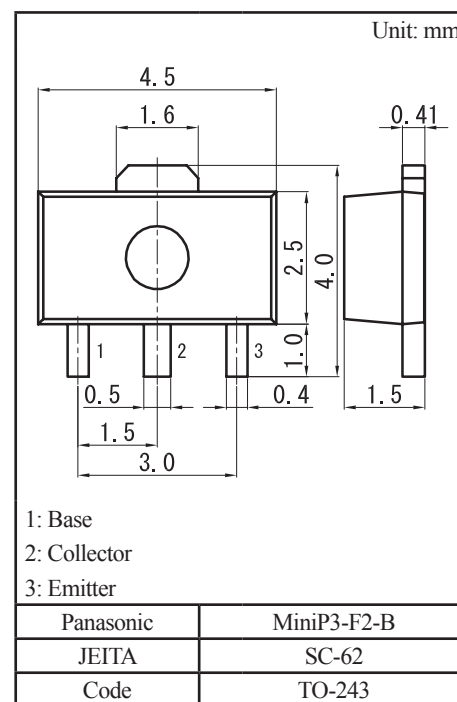
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

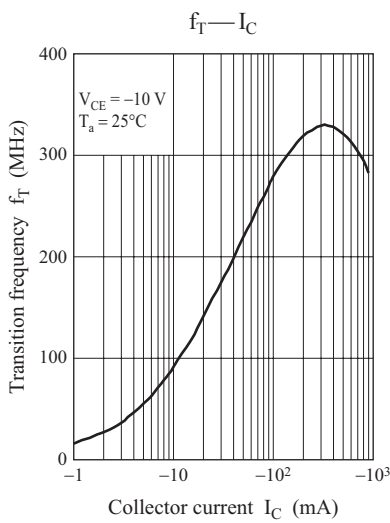
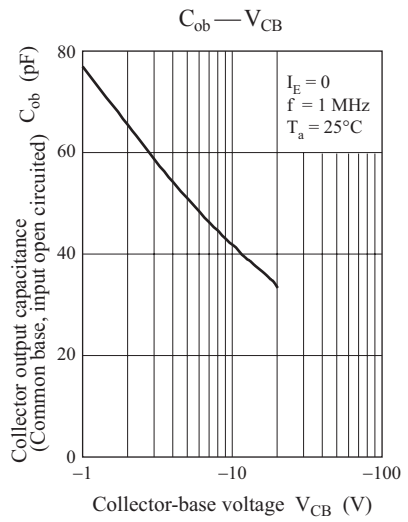
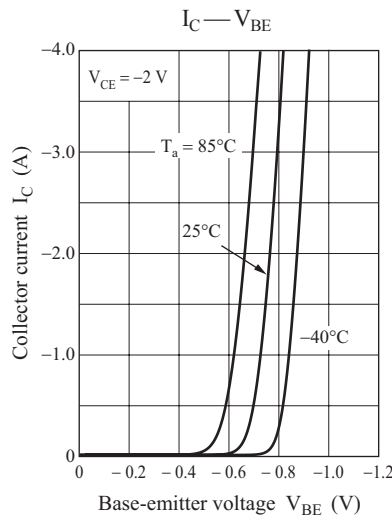
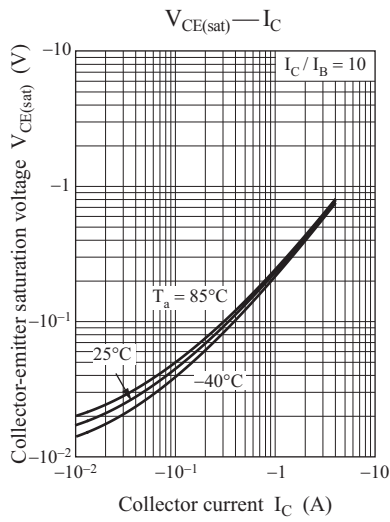
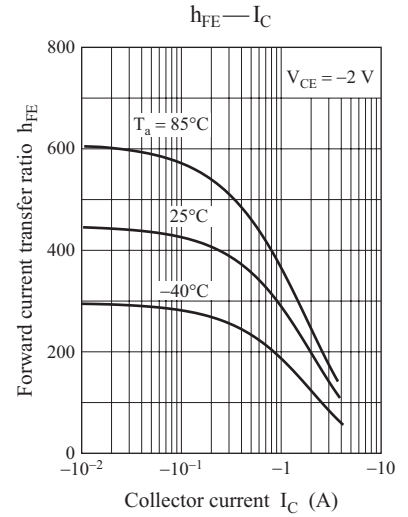
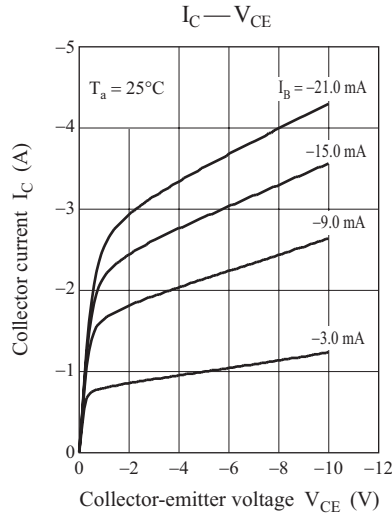
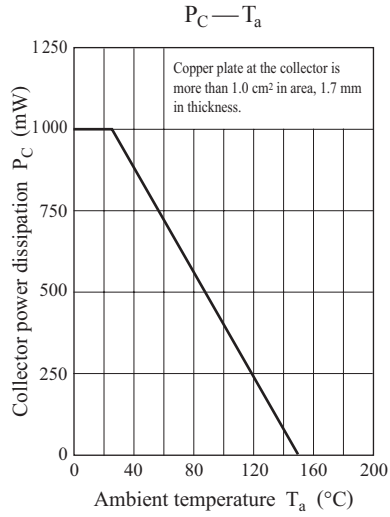
2. *1: Pulse measurement

*2: Rank classification

Code	Q	R	0
Rank	Q	R	No-rank
h_{FE}	120 to 205	180 to 315	120 to 315
Marking Symbol	4FQ	4FR	4F

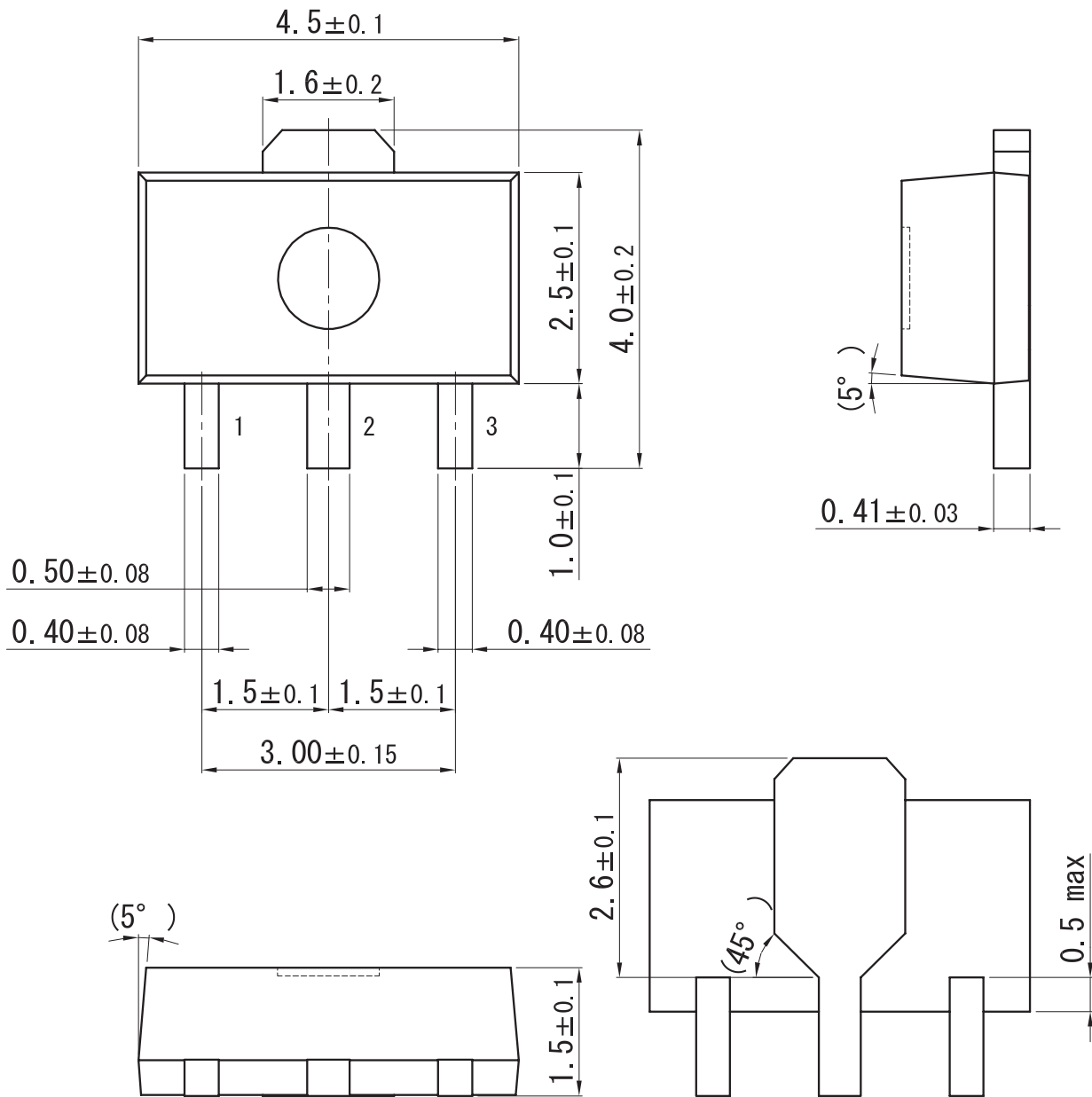
Product of no-rank is not classified and have no marking symbol for rank.



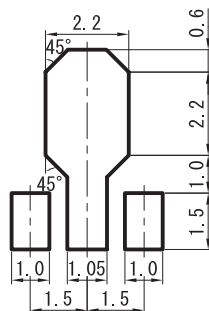


MiniP3-F2-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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