# DSC8003

### Silicon NPN epitaxial planar type

For low frequency output amplification DSC7003 in MT-2 through hole type package

#### Features

- Low collector-emitter saturation voltage V<sub>CE(sat)</sub>
- Contributes to miniaturization of sets, mount area reduction
- Eco-friendly Halogen-free package

#### Packaging

DSC8003×0A Radial type : 2000 pcs / carton

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	60	V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	50	V
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	5	V
Collector current	I <sub>C</sub>	1	А
Peak collector current	I <sub>CP</sub>	1.5	А
Collector power dissipation *	P <sub>C</sub>	1	W
Junction temperature	Tj	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

#### Package

#### Code

MT-2-A2-B

Package dimension clicks here. $\rightarrow$ 

- Pin Name
  - 1. Emitter
  - 2. Collector
  - 3. Base

#### Marking Symbol: 5A

Note) \*: Printed circuit board: Copper foil area of 1 cm<sup>2</sup> or more, and the board thickness of 1.7 mm for the collector portion

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

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_{\rm C} = 10 \ \mu {\rm A}, I_{\rm E} = 0$	60			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{\rm C} = 2  {\rm mA},  I_{\rm B} = 0$	50			V
Emitter-base voltage (Collector open)	V <sub>EBO</sub>	$I_{\rm E} = 10 \ \mu A, I_{\rm C} = 0$	5			V
Collector-base cutoff current (Emitter open)	I <sub>CBO</sub>	$V_{CB} = 20 \text{ V}, I_E = 0$			0.1	μΑ
Forward current transfer ratio *1	h <sub>FE1</sub> *2	$V_{CE} = 10 \text{ V}, I_C = 500 \text{ mA}$	120		340	
	h <sub>FE2</sub>	$V_{CE} = 5 V, I_C = 1 A$	50			
Collector-emitter saturation voltage *1	V <sub>CE(sat)</sub>	$I_{\rm C} = 500 \text{ mA}, I_{\rm B} = 50 \text{ mA}$		0.15	0.4	V
Base-emitter saturation voltage *1	V <sub>BE(sat)</sub>	$I_{\rm C} = 500 \text{ mA}, I_{\rm B} = 50 \text{ mA}$		0.9	1.2	V
Transition frequency	f <sub>T</sub>	$V_{CE} = 10 \text{ V}, I_C = 50 \text{ mA}$		170		MHz
Collector output capacitance (Common base, input open circuited)	C <sub>ob</sub>	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		10	20	pF

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

2. \*1: Pulse measurement

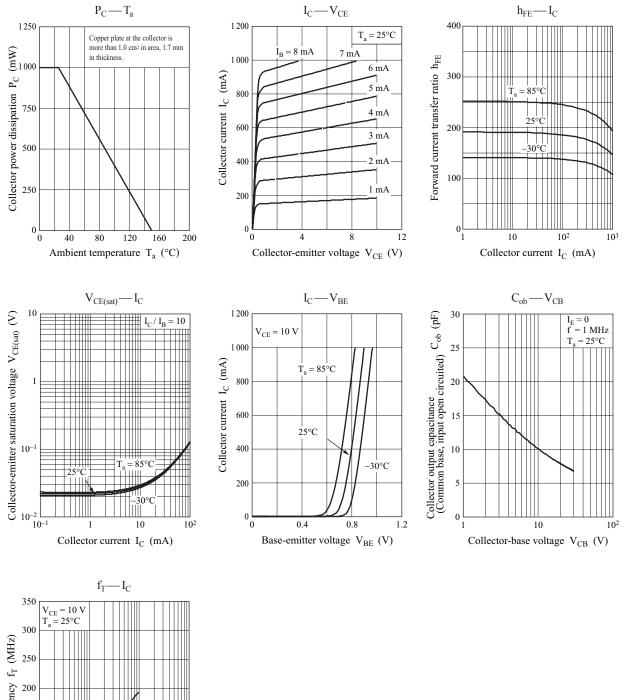
\*2: Rank classification

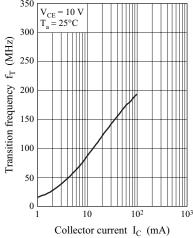
9	
3	No-rank
170 to 340	) 120 to 340
5AS	5A

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

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## **Panasonic**





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