

DSC8P01

Silicon NPN epitaxial planar type darlington

For low frequency output amplification

Darlington connection

DSC2P01 in MT-2 through hole type package

■ Features

- High forward current transfer ratio h_{FE} with excellent linearity
- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

■ Packaging

DSC8P01×0A Radial type : 2000 pcs / carton

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

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	60	V
Collector-emitter voltage (Base open)	V_{CEO}	50	V
Emitter-base voltage (Collector open)	V_{EBO}	5	V
Collector current	I_C	500	A
Peak collector current	I_{CP}	750	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) 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}	$I_C = 100 \mu\text{A}$, $I_E = 0$	60			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 1 \text{ mA}$, $I_B = 0$	50			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 100 \mu\text{A}$, $I_C = 0$	5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 25 \text{ V}$, $I_E = 0$			100	nA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 4 \text{ V}$, $I_C = 0$			100	nA
Forward current transfer ratio *1,2	h_{FE}	$V_{CE} = 10 \text{ V}$, $I_C = 500 \text{ mA}$	4000		20000	—
Collector-emitter saturation voltage *1	$V_{CE(sat)}$	$I_C = 500 \text{ mA}$, $I_B = 0.5 \text{ mA}$			2.5	V
Base-emitter saturation voltage *1	$V_{BE(sat)}$	$I_C = 500 \text{ mA}$, $I_B = 0.5 \text{ mA}$			3.0	V

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
Rank	Q	R
h_{FE}	4000 to 10000	8000 to 20000
Marking Symbol	E5Q	E5R

■ Package

• Code

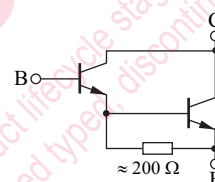
MT-2-A2-B

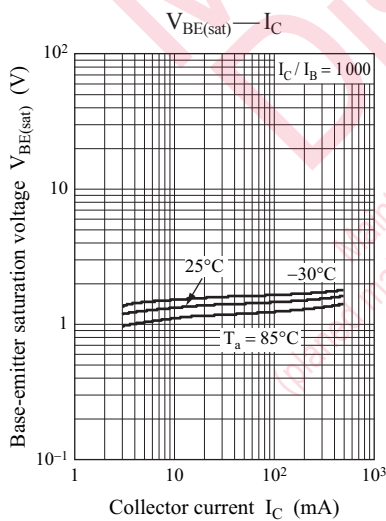
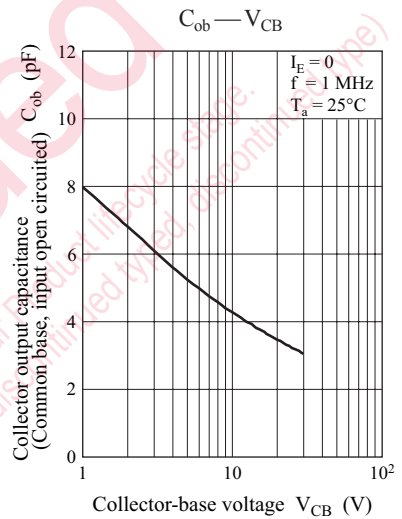
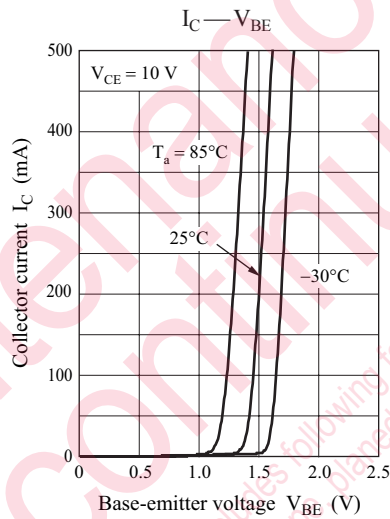
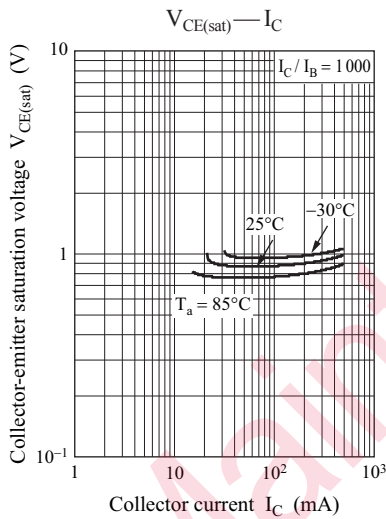
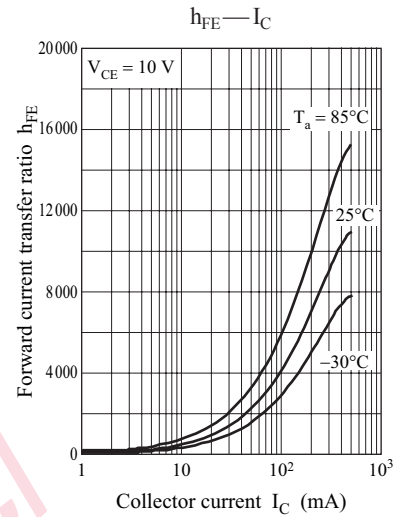
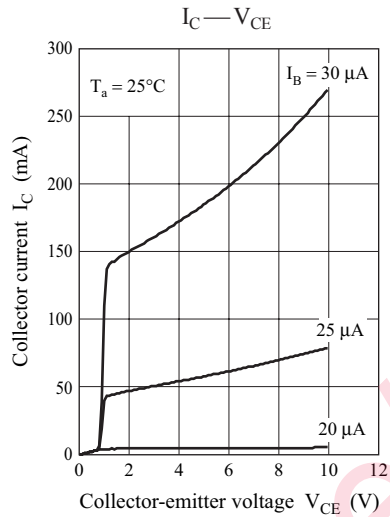
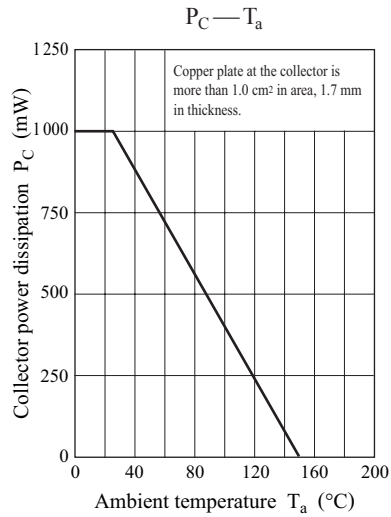
Package dimension clicks here.→

• Pin Name

1. Emitter
2. Collector
3. Base

■ Marking Symbol: E5





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