

# DSC2P01

## Silicon NPN epitaxial planar type

For low frequency amplification  
 Darlingtion connection  
 DSC8P01 in Mini3 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

Embossed type (Thermo-compression sealing): 3000 pcs / reel (standard)

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

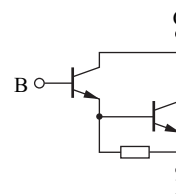
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	60	V
Collector-emitter voltage (Base open)	$V_{CEO}$	50	V
Emitter-base voltage (Collector open)	$V_{EBO}$	5	V
Collector current	$I_C$	500	mA
Peak collector current	$I_{CP}$	750	mA
Total power dissipation	$P_T$	200	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

### ■ Package

- Code  
Mini3-G3-B-B
- Pin Name
  1. Base
  2. Emitter
  3. Collector

### ■ Marking Symbol: E5

### ■ Internal Connection



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

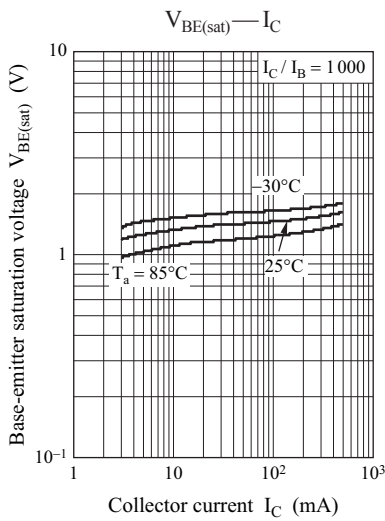
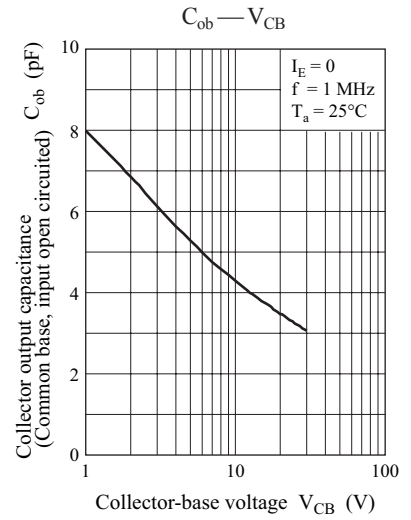
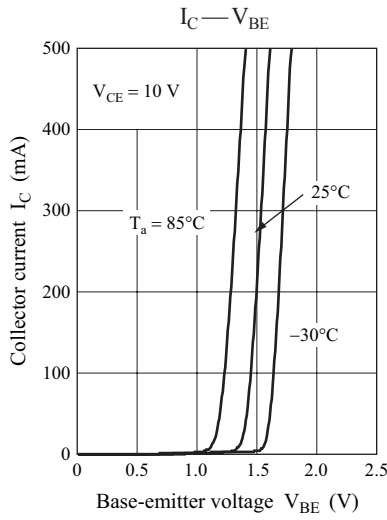
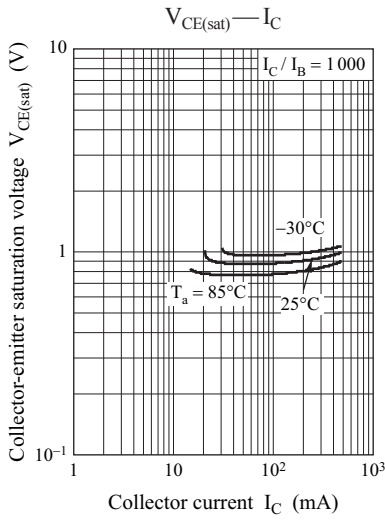
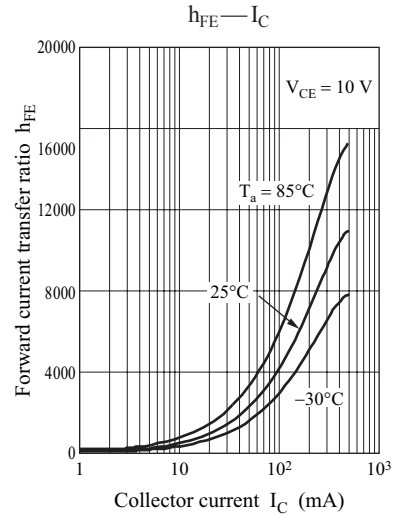
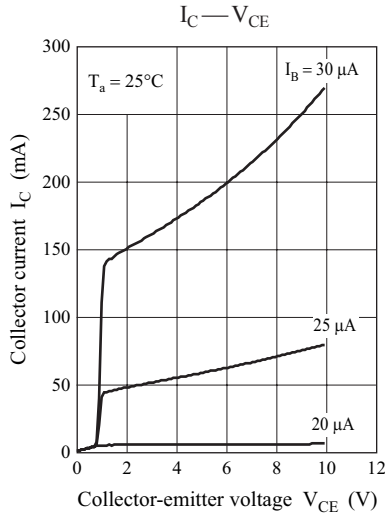
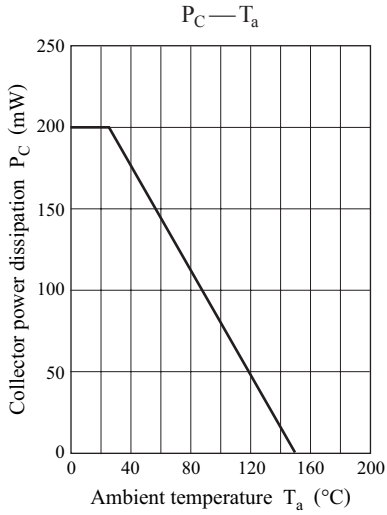
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	$I_C = 100 \mu\text{A}, I_E = 0$	60			V
Collector-emitter voltage (Base open)	$V_{CEO}$	$I_C = 1 \text{ mA}, I_B = 0$	50			V
Emitter-base voltage (Collector open)	$V_{EBO}$	$I_E = 100 \mu\text{A}, I_C = 0$	5			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

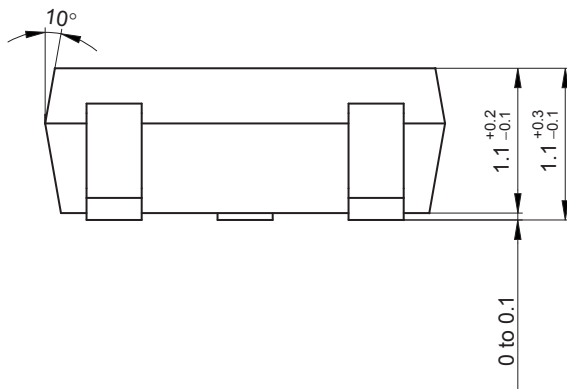
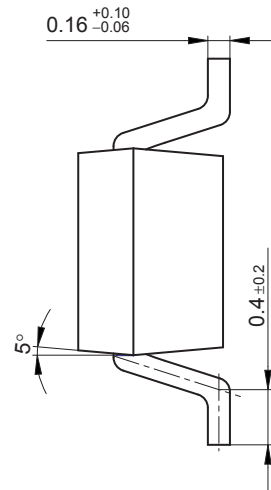
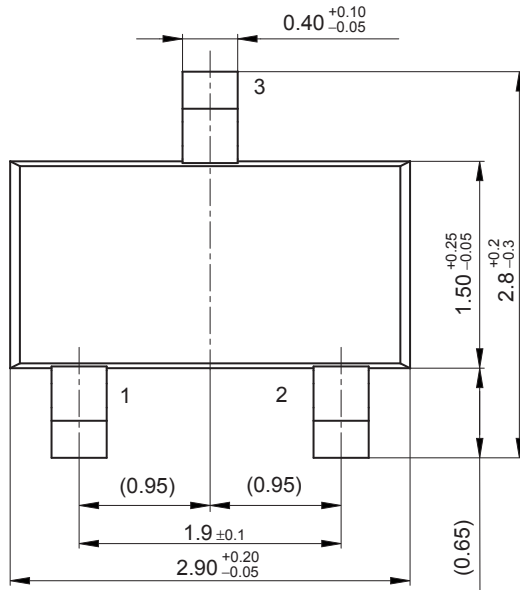
\*2: Rank classification

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



Mini3-G3-B-B

Unit: mm



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