

# DSA5005

## Silicon PNP epitaxial planar type

For general amplification

Complementary to DSC5005

DSA2005 in SMini3 type package

### ■ Features

- High forward current transfer ratio  $h_{FE}$  with excellent linearity
- Low collector-emitter saturation voltage  $V_{CE(sat)}$
- Contributes to miniaturization of sets, mount area reduction
- 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)	$V_{EBO}$	-6	V
Collector current	$I_C$	-200	mA
Peak collector current	$I_{CP}$	-300	mA
Collector power dissipation	$P_C$	150	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

### ■ Package

- Code  
SMini3-F2-B
- Pin Name
  1. Base
  2. Emitter
  3. Collector

### ■ Marking Symbol: A3

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

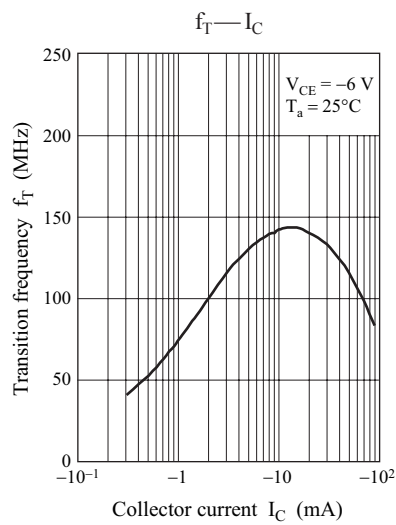
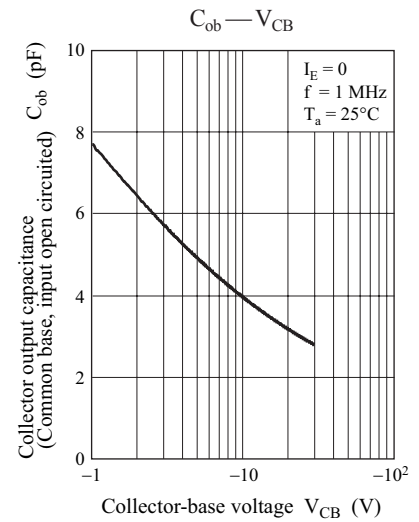
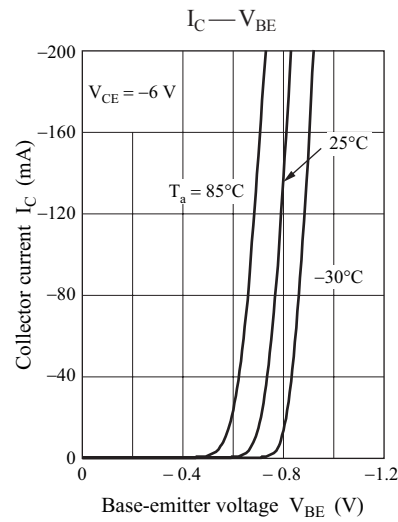
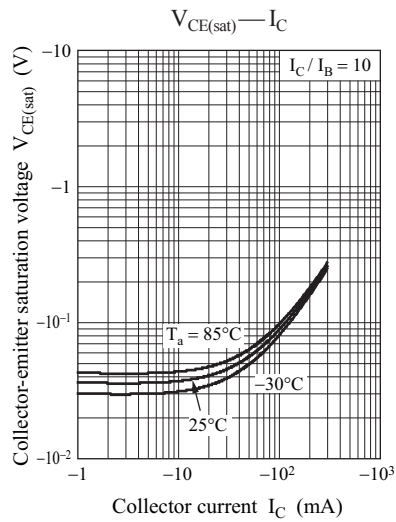
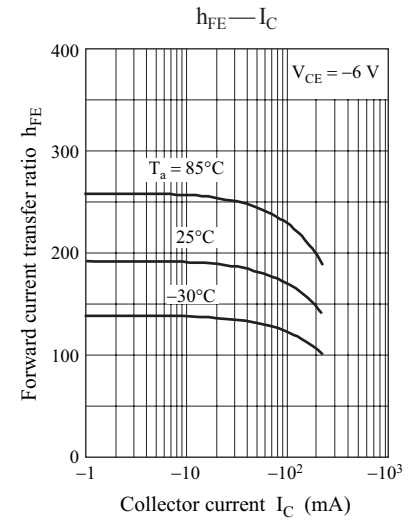
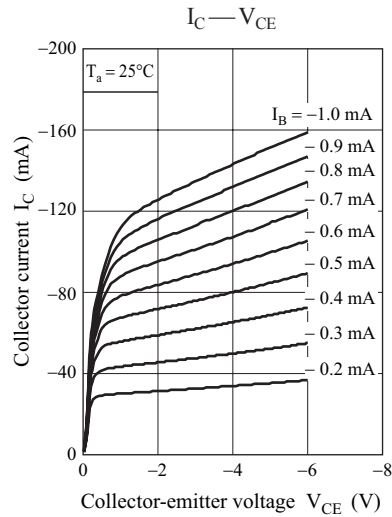
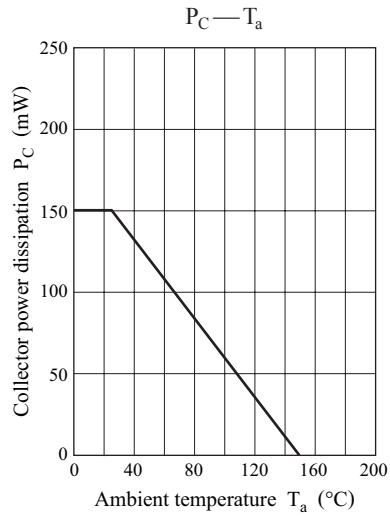
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	$V_{CEO}$	$I_C = -100 \mu\text{A}, I_B = 0$	-50			V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{CB} = -60 \text{ V}, I_E = 0$			-0.1	$\mu\text{A}$
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = -6 \text{ V}, I_C = 0$			-0.1	$\mu\text{A}$
Forward current transfer ratio	$h_{FE1}^*$	$V_{CE} = -6 \text{ V}, I_C = -1 \text{ mA}$	150		390	—
	$h_{FE2}$	$V_{CE} = -6 \text{ V}, I_C = -0.1 \text{ mA}$	90			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100 \text{ mA}, I_B = -10 \text{ mA}$			-0.3	V
Transition frequency	$f_T$	$V_{CE} = -6 \text{ V}, I_C = -10 \text{ mA}$		150		MHz
Collector output capacitance (Common base, input open circuited)	$C_{ob}$	$V_{CB} = -6 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		5.0		pF

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

2. \*: Rank classification

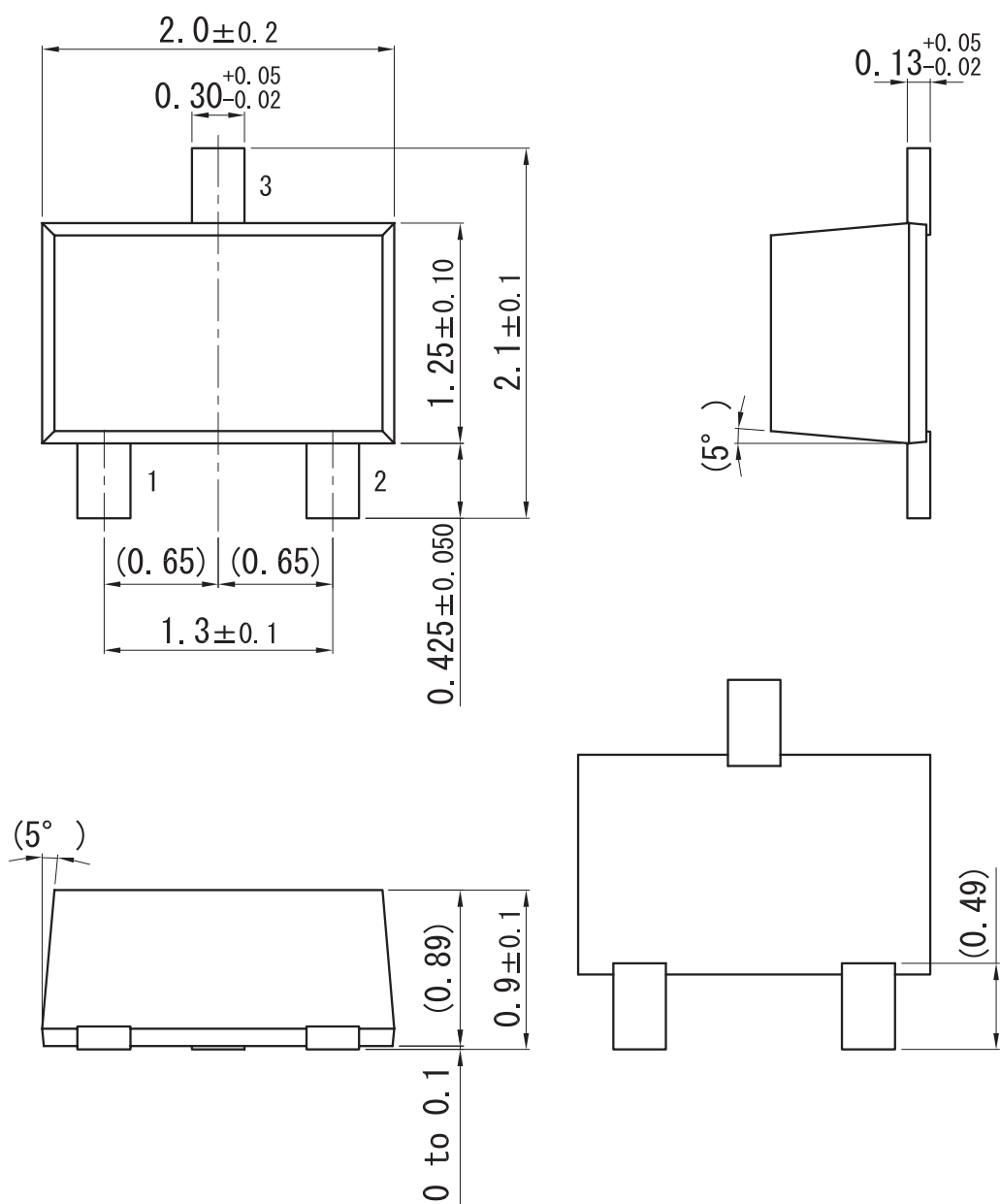
Code	R	S	0
Rank	R	S	No-rank
$h_{FE1}$	150 to 270	200 to 390	150 to 390
Marking Symbol	A3R	A3S	A3

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

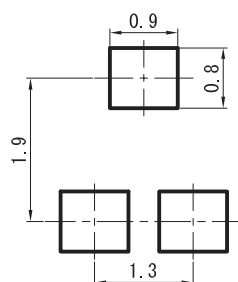


# SMini3-F2-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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