

# DMA50201

## Silicon PNP epitaxial planar type

For general amplification

DMA20102 in SMini5 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

### ■ Basic Part Number

Dual DSA2001 (Common Base)

### ■ 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)	$V_{EBO}$	-7	V
Collector current	$I_C$	-100	mA
Peak collector current	$I_{CP}$	-200	mA
Total power dissipation	$P_T$	150	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

### ■ 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)	$V_{CBO}$	$I_C = -10 \mu\text{A}, I_E = 0$	-60			V
Collector-emitter voltage (Base open)	$V_{CEO}$	$I_C = -2 \text{ mA}, I_B = 0$	-50			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)	$I_{CBO}$	$V_{CB} = -20 \text{ V}, I_E = 0$			-0.1	$\mu\text{A}$
Collector-emitter cutoff current (Base open)	$I_{CEO}$	$V_{CE} = -10 \text{ V}, I_B = 0$			-100	$\mu\text{A}$
Forward current transfer ratio	$h_{FE}$	$V_{CE} = -10 \text{ V}, I_C = -2 \text{ mA}$	210		460	—
$h_{FE}$ ratio *	$h_{FE}$ (Small/Large)	$V_{CE} = -10 \text{ V}, I_C = -2 \text{ mA}$	0.50	0.99		—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100 \text{ mA}, I_B = -10 \text{ mA}$		-0.2	-0.5	V
Transition frequency	$f_T$	$V_{CE} = -10 \text{ V}, I_C = -2 \text{ mA}$		150		MHz
Collector output capacitance (Common base, input open circuited)	$C_{ob}$	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		2		pF

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

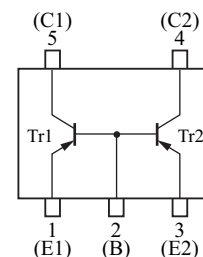
2. \*: Ratio between 2 elements

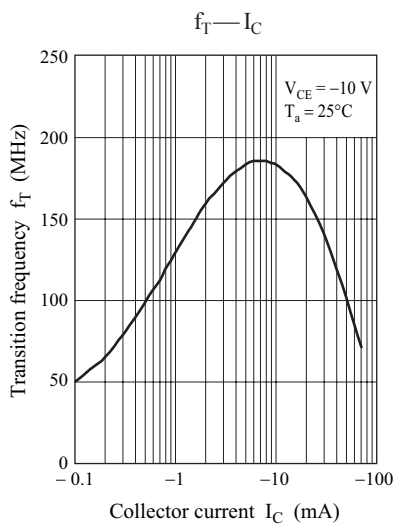
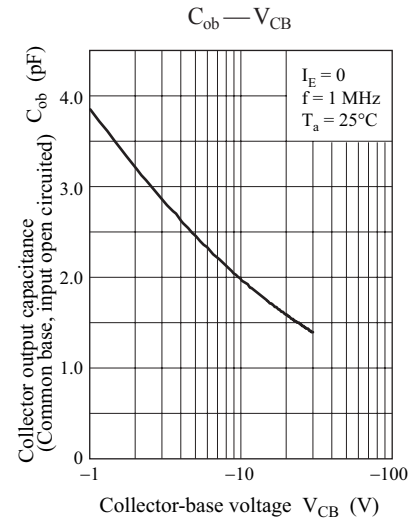
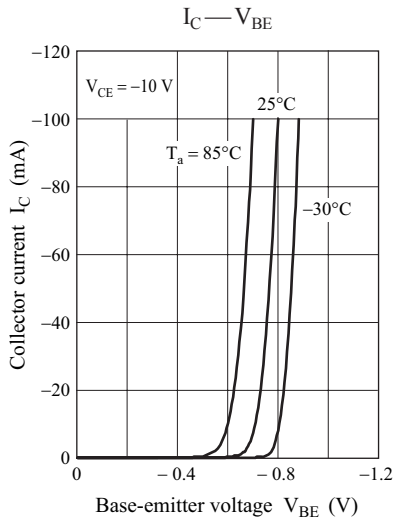
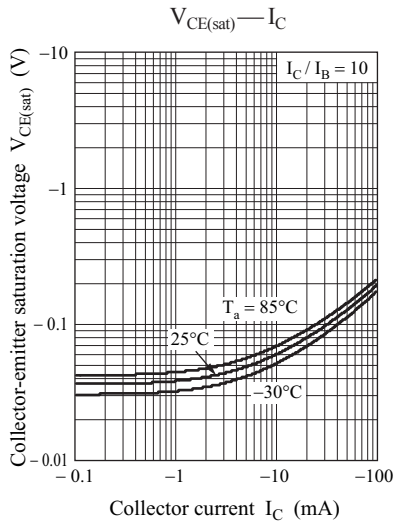
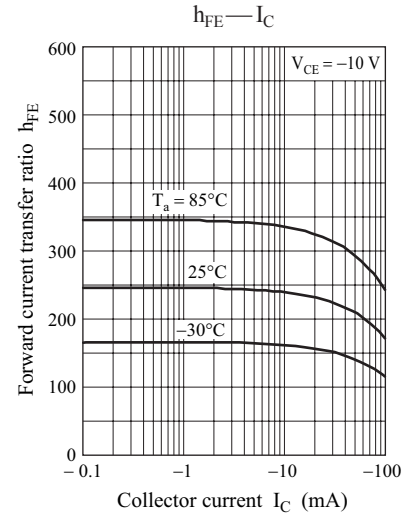
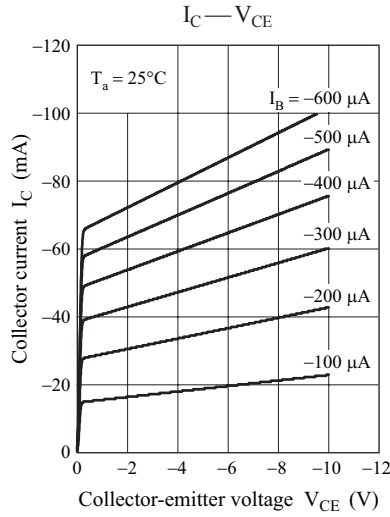
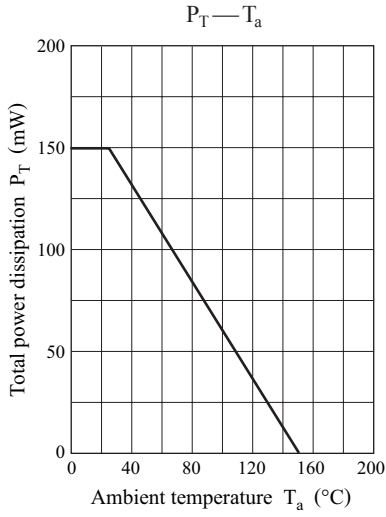
### ■ Package

- Code  
SMini5-F3-B
- Pin Name  
1: Emitter (Tr1)      4: Collector (Tr2)  
2: Base (Common)    5: Collector (Tr1)  
3: Emitter (Tr2)

### ■ Marking Symbol: A5

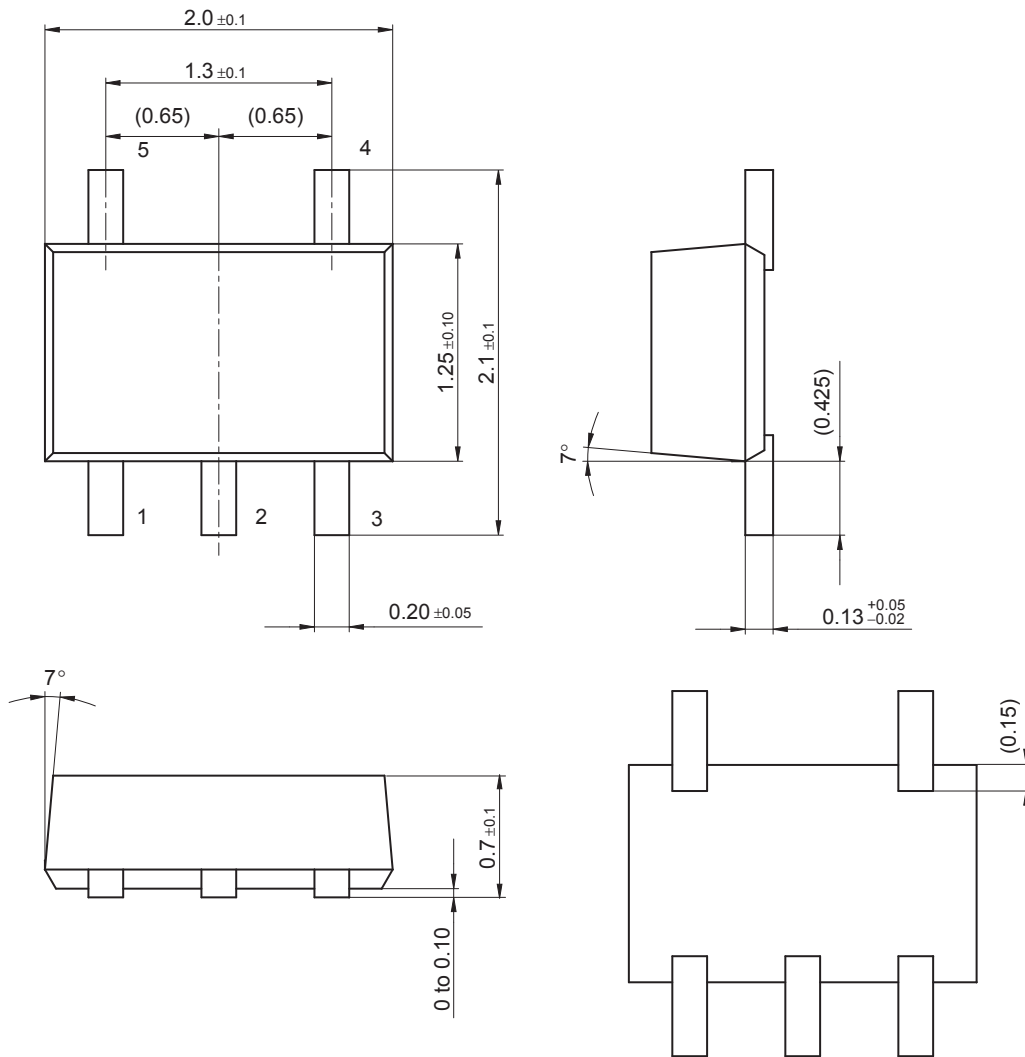
### ■ Internal Connection





SMini5-F3-B

Unit: mm



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