# DMA20401

### Silicon PNP epitaxial planar type

#### For general amplification

#### Features

- $\bullet$  High forward current transfer ratio  $h_{FE}$  with excellent linearity
- $\bullet$  Low collector-emitter saturation voltage  $V_{CE(sat)}$
- Halogen-free / RoHS compliant (EU RoHS / UL-94 V-0 / MSL: Level 1 compliant)
- Marking Symbol: A7

#### Basic Part Number

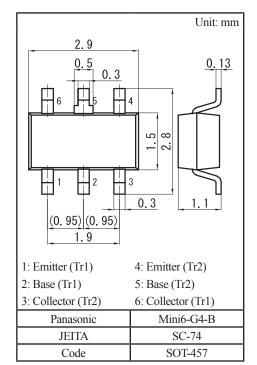
Dual DSA2001 (Individual)

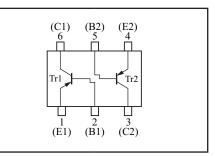
#### Packaging

DMA204010R Embossed type (Thermo-compression sealing): 3 000 pcs / reel (standard)

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

	Parameter	Symbol	Rating	Unit	
Tr1 Tr2	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> -7		V	
	Collector current	I <sub>C</sub>	I <sub>C</sub> -100		
	Peak collector current	I <sub>CP</sub>	-200	mA	
Overall	Total power dissipation	P <sub>T</sub>	300	mW	
	Junction temperature	Tj	T <sub>j</sub> 150		
	Operating ambient temperature	T <sub>opr</sub> -40 to +85		°C	
	Storage temperature	T <sub>stg</sub> -55 to +150		°C	





#### 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>	$I_{\rm E} = -10 \ \mu A, I_{\rm C} = 0$	-7			V
Collector-base cutoff current (Emitter open)	I <sub>CBO</sub>	$V_{CB} = -20 \text{ V}, I_E = 0$			- 0.1	μΑ
Collector-emitter cutoff current (Base open)	I <sub>CEO</sub>	$V_{\rm CE} = -10 \text{ V}, I_{\rm B} = 0$			-100	μΑ
Forward current transfer ratio	h <sub>FE</sub>	$V_{\rm CE} = -10$ V, $I_{\rm C} = -2$ mA	210		460	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{\rm C} = -100 \text{ mA}, I_{\rm B} = -10 \text{ mA}$		- 0.2	- 0.5	V
Transition frequency	$\mathbf{f}_{\mathrm{T}}$	$V_{CE} = -10 \text{ V}, I_C = -2 \text{ mA}$		150		MHz
Collector output capacitance (Common base, input open circuited)	C <sub>ob</sub>	$V_{CB} = -10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$		2		pF

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

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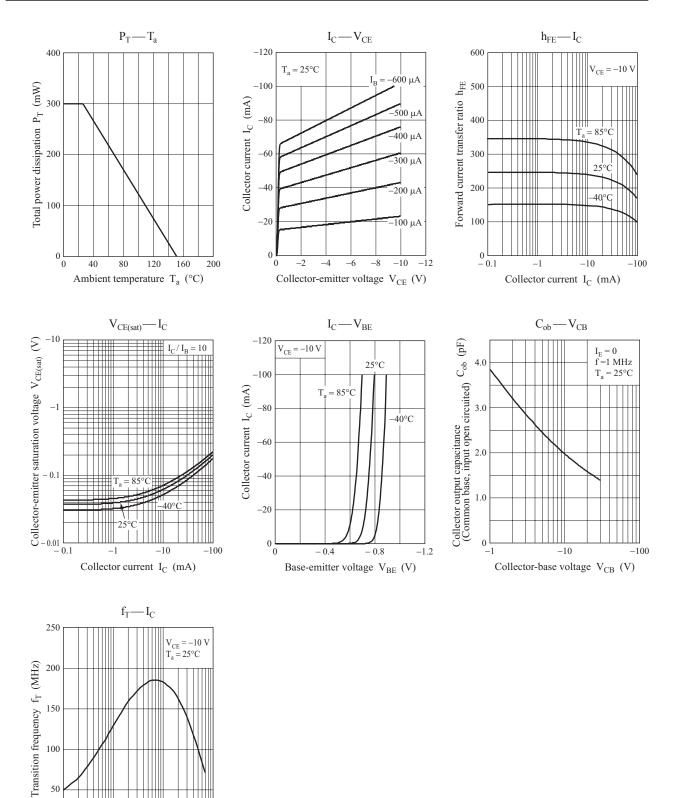
0

 $^{-1}$ 

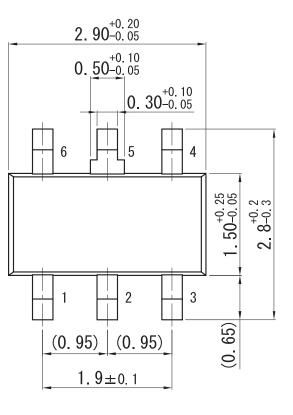
Collector current  $I_C$  (mA)

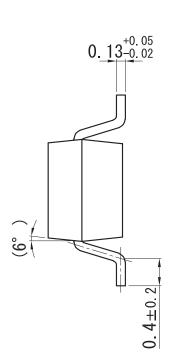
-10

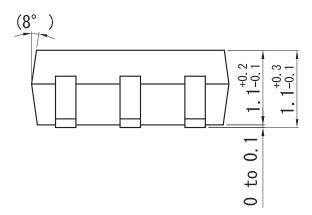
-100



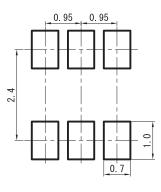
## Mini6-G4-B







Land Pattern (Reference) (Unit: mm)



Unit: mm

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