# **DMA56103**

## Silicon PNP epitaxial planar type

For digital circuits
DMA26103 in SMini5 type package

#### ■ Features

- $\bullet$  Low collector-emitter saturation voltage  $V_{\text{CE(sat)}}$
- Halogen-free / RoHS compliant
   (EU RoHS / UL-94 V-0 / MSL: Level 1 compliant)
- Marking Symbol: G8

### ■ Basic Part Number

Dual DRA2144E (Common emitter)

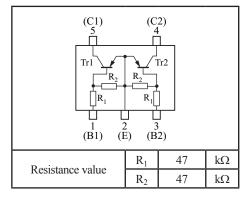
#### Packaging

DMA561030R Embossed type (Thermo-compression sealing): 3 000 pcs / reel (standard)

### ■ Absolute Maximum Ratings $T_a = 25$ °C

	Parameter	Symbol	Rating	Unit	
Tr1 Tr2	Collector-base voltage (Emitter open)	$V_{CBO}$	-50	V	
	Collector-emitter voltage (Base open)	$V_{CEO}$	-50	V	
	Collector current	$I_{C}$	-100	mA	
Overall	Total power dissipation	$P_{T}$	150	mW	
	Junction temperature	$T_j$	150	°C	
	Operating ambient temperature	T <sub>opr</sub>	-40 to +85	°C	
	Storage temperature	T <sub>stg</sub>	-55 to +150	°C	

## Unit: mm 2.0 0.13 0.7 (0.65)(0.65) 1: Base (Tr1) 4: Collector (Tr2) 5: Collector (Tr1) 2: Emitter (Common) 3: Base (Tr2) Panasonic SMini5-F3-B **JEITA** SC-113CB Code SOT-353

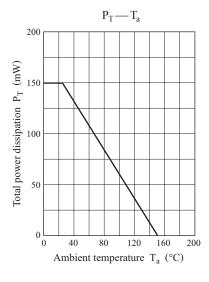


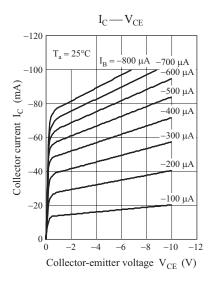
### ■ Electrical Characteristics $T_a = 25$ °C±3°C

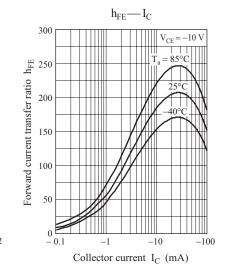
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_C = -10  \mu A, I_E = 0$	-50			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_C = -2 \text{ mA}, I_B = 0$	-50			V
Collector-base cutoff current (Emitter open)	$I_{CBO}$	$V_{\rm CB} = -50 \text{ V}, I_{\rm E} = 0$			-0.1	μΑ
Collector-emitter cutoff current (Base open)	I <sub>CEO</sub>	$V_{CE} = -50 \text{ V}, I_{B} = 0$			-0.5	μΑ
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = -6 \text{ V}, I_C = 0$			-0.1	mA
Forward current transfer ratio	$h_{\mathrm{FE}}$	$V_{CE} = -10 \text{ V}, I_{C} = -5 \text{ mA}$	80			_
h <sub>FE</sub> ratio *1	h <sub>FE</sub> (Small/Large)	$V_{CE} = -10 \text{ V}, I_{C} = -5 \text{ mA}$	0.50	0.99		_
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_C = -10 \text{ mA}, I_B = -0.5 \text{ mA}$			-0.25	V
Input voltage (ON)	V <sub>I(on)</sub>	$V_{CE} = -0.2 \text{ V}, I_{C} = -5 \text{ mA}$	-3.6			V
Input voltage (OFF)	V <sub>I(off)</sub>	$V_{CE} = -5 \text{ V}, I_{C} = -100 \mu\text{A}$			-0.8	V
Input resistance	$R_1$		-30%	47	+30%	kΩ
Resistance ratio	$R_1/R_2$		0.8	1.0	1.2	_

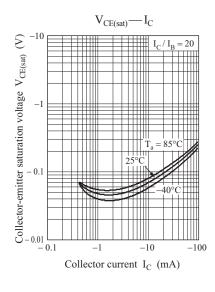
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

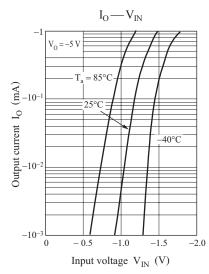
2. \*1: Ratio between 2 elements

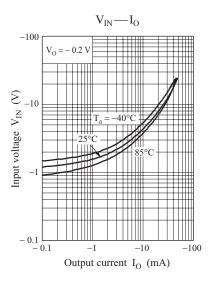








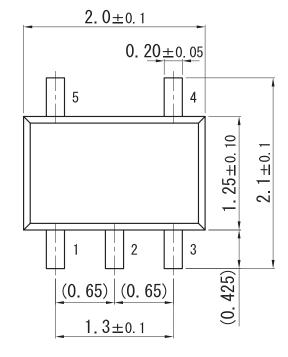


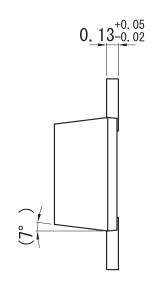


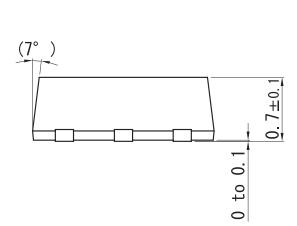
Ver. DED 2

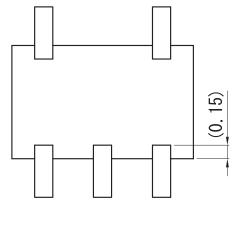
## SMini5-F3-B

Unit: mm

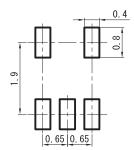








### ■ Land Pattern (Reference) (Unit: mm)



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