# DMG26401

### Silicon NPN epitaxial planar type (Tr1) Silicon PNP epitaxial planar type (Tr2)

For digital circuits

#### Features

- $\bullet$  Low collector-emitter saturation voltage  $V_{\mbox{CE(sat)}}$
- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

#### Basic Part Number

DRC2114E + DRA2114E (Individual)

#### Packaging

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

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

	Parameter	Symbol	Rating	Unit
	Collector-base voltage (Emitter open)	V <sub>CBO</sub>	50	V
Tr1	Collector-emitter voltage (Base open)	V <sub>CEO</sub>	50	V
	Collector current	I <sub>C</sub>	100	mA
Tr2	Collector-base voltage (Emitter open)	V <sub>CBO</sub>	-50	V
	Collector-emitter voltage (Base open)	V <sub>CEO</sub>	-50	V
	Collector current	I <sub>C</sub>	-100	mA
Overall	Total power dissipation	P <sub>T</sub>	300	mW
	Junction temperature	Tj	150	°C
	Storage temperature	T <sub>stg</sub>	-55 to +150	°C

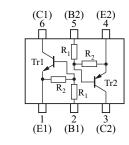
#### Package

#### Code

- Mini6-G4-B
- Pin Name
  - 1: Emitter (Tr1) 4: Emitter (Tr2)
  - 2: Base (Tr1) 5: Base (Tr2)
  - 3: Collector (Tr2) 6: Collector (Tr1)

#### Marking Symbol: E6

#### Internal Connection



	Tr1	R <sub>1</sub>	10	kΩ	
Resistance	111	R <sub>2</sub>	10	KS 2	
value	Tr2	R <sub>1</sub>	10	kΩ	
		R <sub>2</sub>	10	KS 2	

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

#### • Tr1

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_{\rm C} = 10 \ \mu {\rm A}, I_{\rm E} = 0$	50			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{\rm C} = 2 \text{ mA}, I_{\rm B} = 0$	50			V
Collector-base cutoff current (Emitter open)	I <sub>CBO</sub>	$V_{CB} = 50 \text{ V}, I_E = 0$			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)	$I_{EBO}$	$V_{EB} = 6 V, I_C = 0$			0.5	mA
Forward current transfer ratio	$\mathbf{h}_{\mathrm{FE}}$	$V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$	35			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{\rm C} = 10 \text{ mA}, I_{\rm B} = 0.5 \text{ mA}$			0.25	V
Input voltage (ON)	V <sub>I(on)</sub>	$V_{\rm CE} = 0.2$ V, $I_{\rm C} = 5$ mA	2.1			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 <sub>1</sub>		-30%	10	+30%	kΩ
Resistance ratio	$R_1 / R_2$		0.8	1.0	1.2	_

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

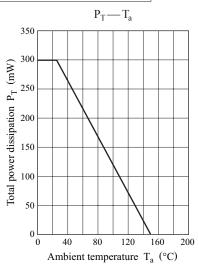
#### DMG26401

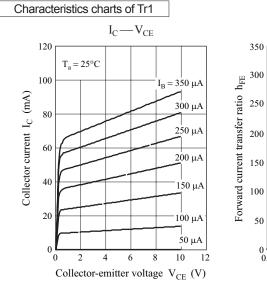
#### Electrical Characteristics (Continued) $T_a = 25^{\circ}C \pm 3^{\circ}C$

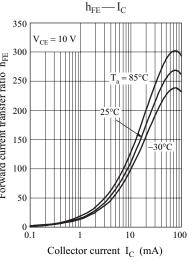
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V <sub>CBO</sub>	$I_{\rm C} = -10 \ \mu {\rm A}, I_{\rm E} = 0$	-50			V
Collector-emitter voltage (Base open)	V <sub>CEO</sub>	$I_{\rm C} = -2  {\rm mA},  I_{\rm B} = 0$	-50			V
Collector-base cutoff current (Emitter open)	I <sub>CBO</sub>	$V_{CB} = -50 \text{ V}, I_E = 0$			-0.1	μΑ
Collector-emitter cutoff current (Base open)	I <sub>CEO</sub>	$V_{\rm CE} = -50 \text{ V}, I_{\rm B} = 0$			-0.5	μΑ
Emitter-base cutoff current (Collector open)	I <sub>EBO</sub>	$V_{EB} = -6 \text{ V}, I_C = 0$			-0.5	mA
Forward current transfer ratio	h <sub>FE</sub>	$V_{\rm CE} = -10$ V, $I_{\rm C} = -5$ mA	35			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{\rm C} = -10 \text{ mA}, I_{\rm B} = -0.5 \text{ mA}$			-0.25	V
Input voltage (ON)	V <sub>I(on)</sub>	$V_{CE} = -0.2 \text{ V}, I_C = -5 \text{ mA}$	-2.1			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 <sub>1</sub>		-30%	10	+30%	kΩ
Resistance ratio	R <sub>1</sub> / R <sub>2</sub>		0.8	1.0	1.2	

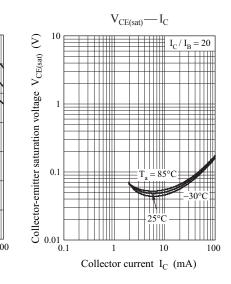
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

Common characteristics chart

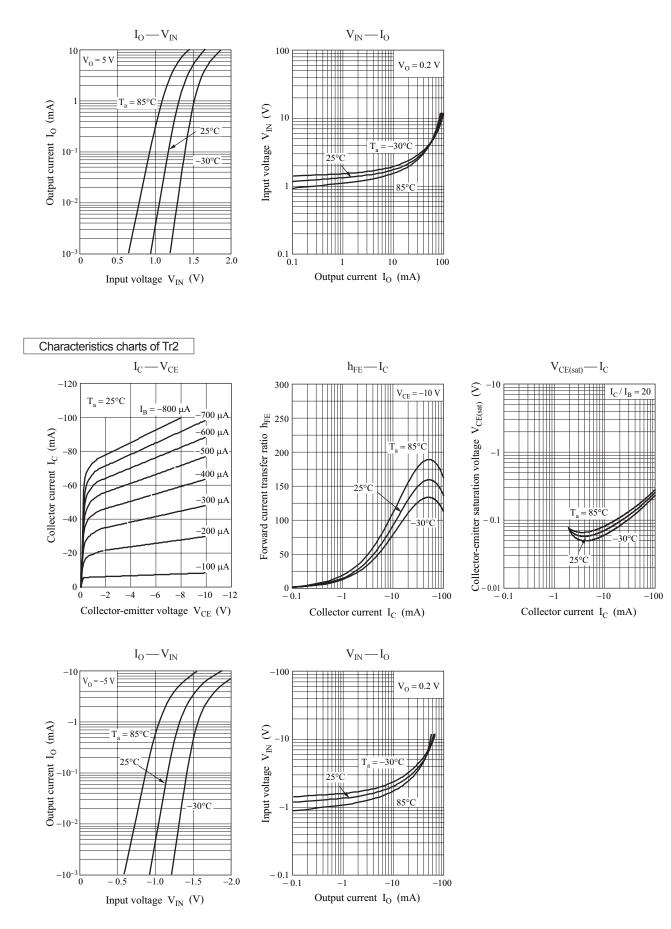






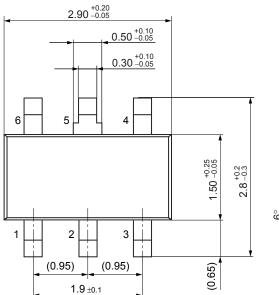


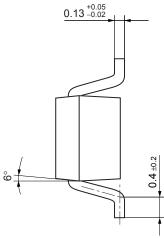
### <u>Panasonic</u>

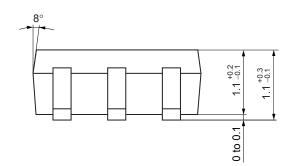


Mini6-G4-B

Unit: mm







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