

Panasonic

DRC2614T0L

Silicon NPN epitaxial planar type

For digital circuits / Muting

■ Features

- Low collector-emitter saturation voltage $V_{ce(sat)}$
- Halogen-free / RoHS compliant
(EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)

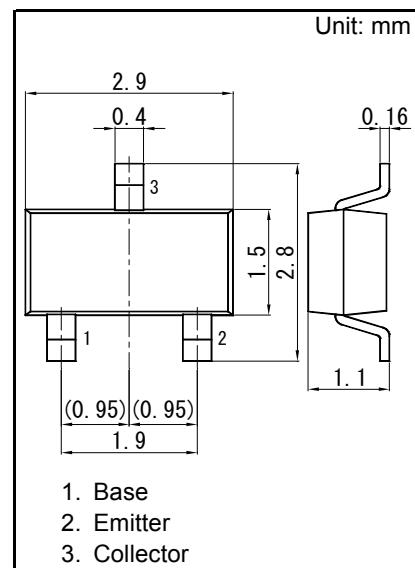
■ Marking Symbol: VT

■ Packaging

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

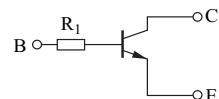
■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$VCBO$	30	V
Collector-emitter voltage (Base open)	$VCEO$	20	V
Emitter-base voltage (Collector open)	$VEBO$	5	V
Collector current	IC	600	mA
Total power dissipation	PT	200	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Operating ambient temperature	T_{opr}	-40 to +85	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$



Panasonic	Mini3-G3-B
JEITA	SC-59A
Code	TO-236AA/SOT-23

Internal Connection



Resistance value	R1	10	k Ω
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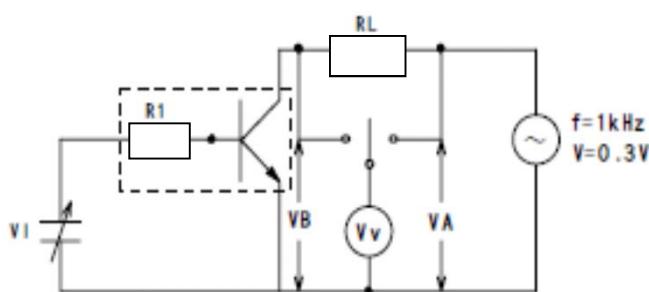
■ Electrical Characteristics $T_a = 25 \text{ }^{\circ}\text{C} \pm 3 \text{ }^{\circ}\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	VCBO	$IC = 10 \mu\text{A}, IE = 0$	30			V
Collector-emitter voltage (Base open)	VCEO	$IC = 1 \text{ mA}, IB = 0$	20			V
Emitter-base voltage (Collector open)	VEBO	$IE = 10 \mu\text{A}, IC = 0$	5			V
Collector-base cutoff current (Emitter open)	ICBO	$VCB = 30 \text{ V}, IE = 0$			1	μA
Emitter-base cutoff current (Collector open)	IEBO	$VEB = 5 \text{ V}, IC = 0$			1	μA
Forward current transfer ratio ¹	hFE	$VCE = 5 \text{ V}, IC = 50 \text{ mA}$	100		600	-
Collector-emitter saturation voltage	VCE(sat)	$IC = 50 \text{ mA}, IB = 2.5 \text{ mA}$			80	mV
Input resistance	R1		-30%	10	+30%	$\text{k}\Omega$
On resistance ²	Ron	$VI = 7 \text{ V}, RL = 1 \text{ k}\Omega, f = 1 \text{ kHz}$		2.5		Ω

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

2. ¹ Pulse Test

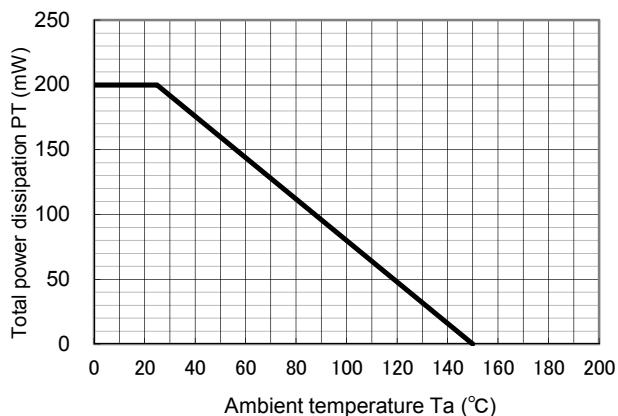
² On resistance test circuit



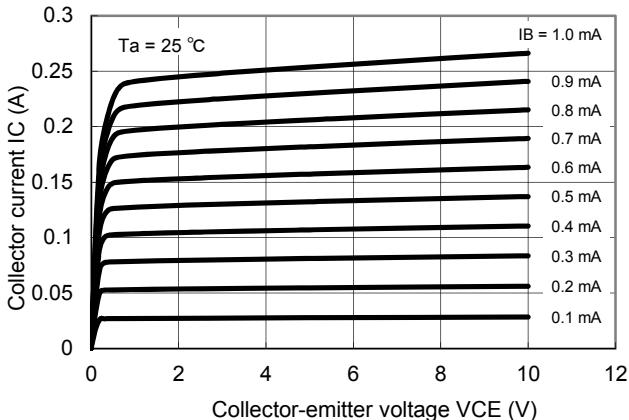
$$R_{on} = \frac{VB}{VA - VB} \times RL \quad (\Omega)$$

Technical Data (reference)

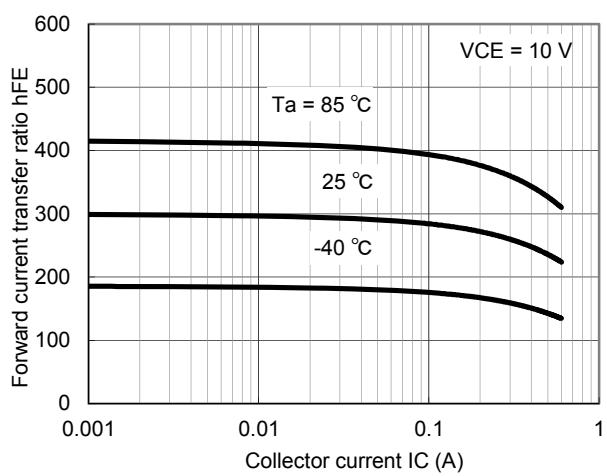
PT - Ta



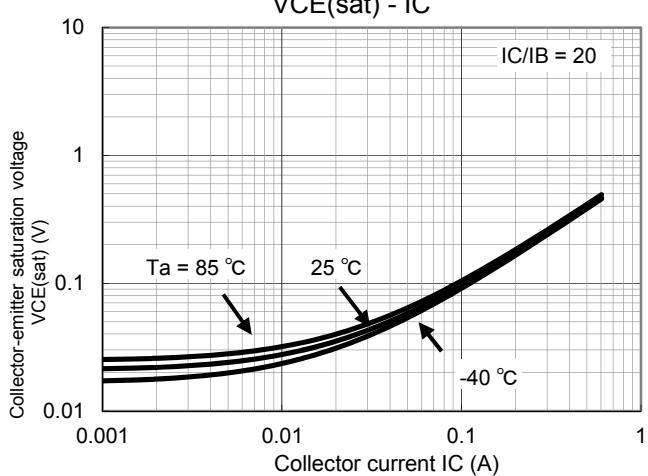
IC - VCE



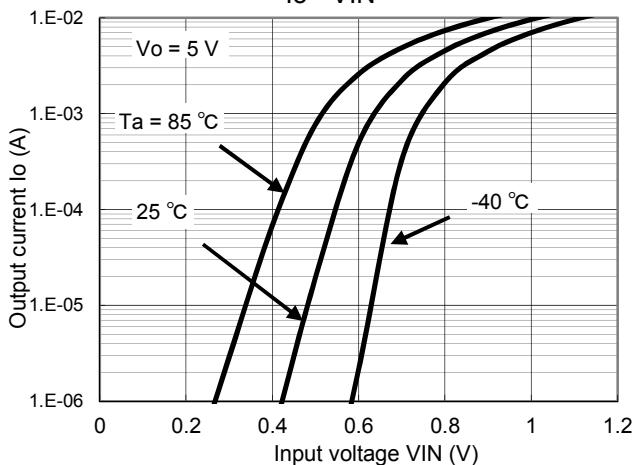
hFE - IC



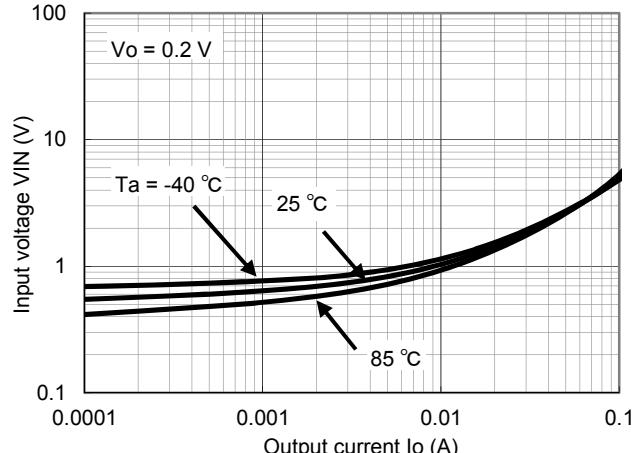
VCE(sat) - IC



Io - VIN



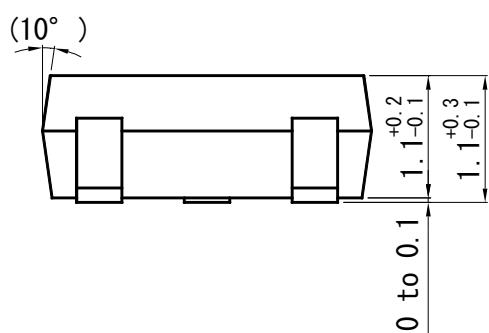
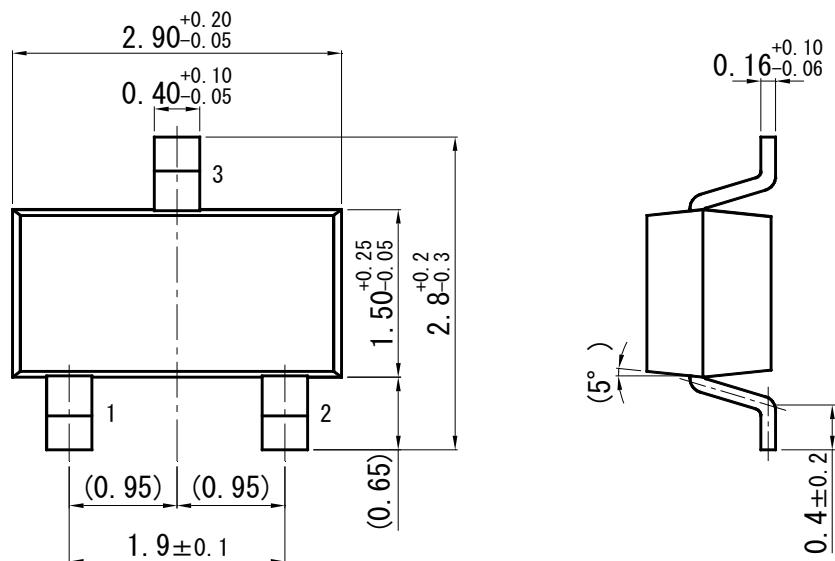
VIN - Io



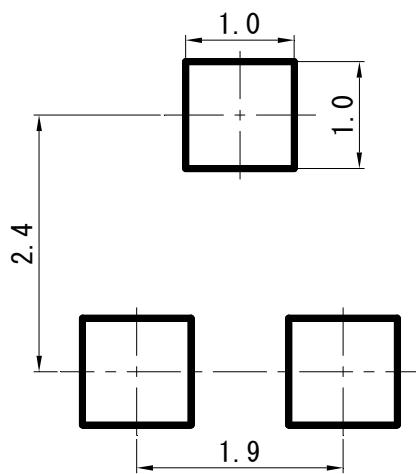
Panasonic

Mini3-G3-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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