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Transistors with Built-in Resistor

DRC3143Z0L

# **Panasonic**

### DRC3143Z0L

Silicon NPN epitaxial planar type

For digital circuits
Complementary to DRA3143Z
DRC9143Z in SSSMini3 type package

#### ■ Features

- · High forward current transfer ratio hFE
- Low collector-emitter saturation voltage Vce(sat)
- Halogen-free / RoHS compliant (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)
- Marking Symbol: N8

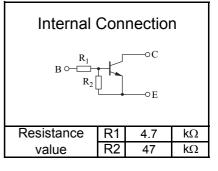
#### Packaging

Embossed type (Thermo-compression sealing): 10 000 pcs / reel (standard)

■ Absolute Maximum Ratings Ta = 25 °C

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	VCBO	50	V
Collector-emitter voltage (Base open)	VCEO	50	V
Collector current	IC	100	mA
Total power dissipation	PT	100	mW
Junction temperature	Tj	150	°C
Operating ambient temperature	Topr	-40 to +85	°C
Storage temperature	Tstg	-55 to +150	°C

#### Unit: mm 1.2 0.3 0. 13 0. 2 0. 52 (0.4) (0.4) 0.8 1. Base 2. Emitter 3. Collector SSSMini3-F2-B Panasonic JEITA SC-105AA Code SOT-723



#### ■ Electrical Characteristics Ta = 25 °C ± 3 °C

Established: 2009-10-27

: 2014-03-26

Revised

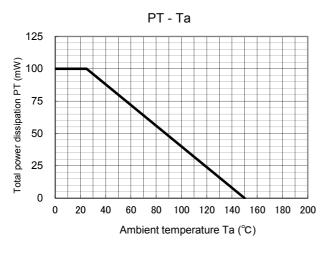
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	VCBO	IC = 10 μA, IE = 0	50			V
Collector-emitter voltage (Base open)	VCEO	IC = 2 mA, IB = 0	50			V
Collector-base cutoff current (Emitter open)	ICBO	VCB = 50 V, IE = 0			0.1	μΑ
Collector-emitter cutoff current (Base open)	ICEO	VCE = 50 V, IB = 0			0.5	μΑ
Emitter-base cutoff current (Collector open)	IEBO	VEB = 6 V, IC = 0			0.2	mΑ
Forward current transfer ratio	hFE	VCE = 10 V, IC = 5 mA	80		400	-
Collector-emitter saturation voltage	VCE(sat)	IC = 10 mA, IB = 0.5 mA			0.25	V
Input voltage	Vi(on)	VCE = 0.2 V, IC = 5 mA	1.3			V
	Vi(off)	VCE = 5 V, IC = 100 μA			0.4	V
Input resistance	R1		-30%	4.7	+30%	kΩ
Resistance ratio	R1/R2		0.08	0.10	0.12	-

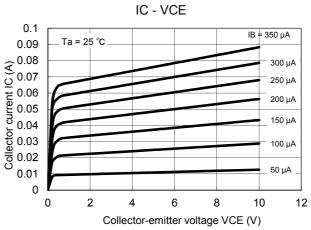
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

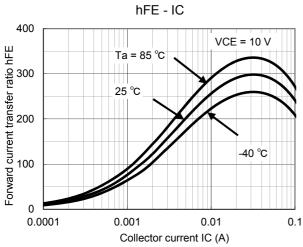
#### DRC3143Z0L

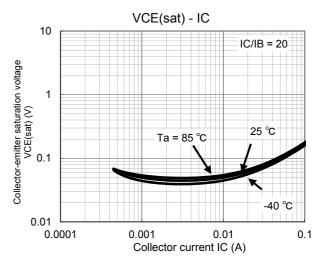
# **Panasonic**

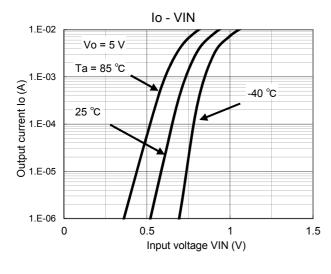
## Technical Data (reference)

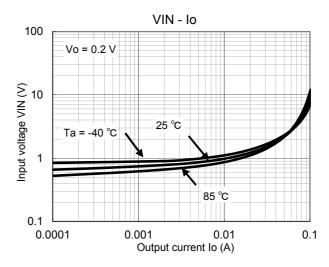












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Established: 2009-10-27 Revised: 2014-03-26

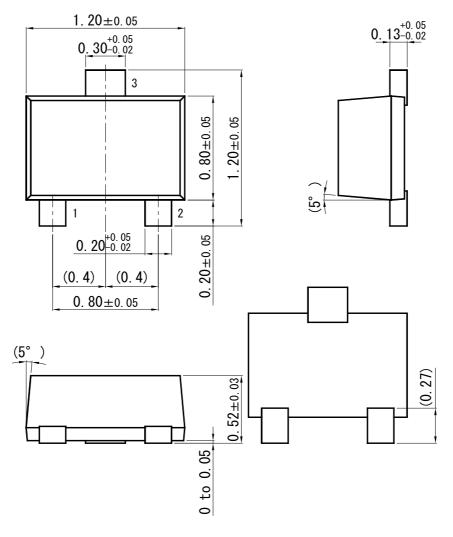
Transistors with Built-in Resistor

DRC3143Z0L

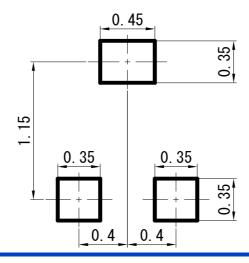
# SSSMini3-F2-B

**Panasonic** 

Unit: mm



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



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Established: 2009-10-27 Revised: 2014-03-26

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