Transistors with Built-in Resistor

DRC3143Y0L

Panasonic

DRC3143Y0L

Silicon NPN epitaxial planar type

For digital circuits
Complementary to DRA3143Y
DRC9143Y 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: N7

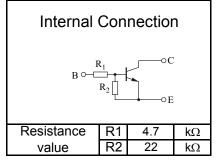
■ Packaging

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

Symbol	Conditions	Min	Тур	Max	Unit
VCBO	IC = 10 μA, IE = 0	50			V
VCEO	IC = 2 mA, IB = 0	50			V
ICBO	VCB = 50 V, IE = 0			0.1	μΑ
ICEO	VCE = 50 V, IB = 0			0.5	μΑ
IEBO	VEB = 6 V, IC = 0			0.4	mA
hFE	VCE = 10 V, IC = 5 mA	60		200	•
VCE(sat)	IC = 10 mA, IB = 0.5 mA			0.25	V
Vi(on)	VCE = 0.2 V, IC = 5 mA	1.2			V
Vi(off)	VCE = 5 V, IC = 100 μA			0.5	V
R1		-30%	4.7	+30%	kΩ
R1/R2		0.17	0.21	0.27	-
	VCBO VCEO ICBO ICEO IEBO hFE VCE(sat) Vi(on) Vi(off) R1	VCBO IC = 10 μA, IE = 0 VCEO IC = 2 mA, IB = 0 ICBO VCB = 50 V, IE = 0 ICEO VCE = 50 V, IB = 0 IEBO VEB = 6 V, IC = 0 hFE VCE = 10 V, IC = 5 mA VCE(sat) IC = 10 mA, IB = 0.5 mA Vi(on) VCE = 0.2 V, IC = 5 mA Vi(off) VCE = 5 V, IC = 100 μA R1	VCBO IC = 10 μA, IE = 0 50 VCEO IC = 2 mA, IB = 0 50 ICBO VCB = 50 V, IE = 0 50 ICEO VCE = 50 V, IB = 0 50 IEBO VEB = 6 V, IC = 0 50 NFE VCE = 10 V, IC = 5 mA 60 VCE(sat) IC = 10 mA, IB = 0.5 mA 1.2 Vi(off) VCE = 5 V, IC = 100 μA 1.2 R1 -30%	VCBO IC = 10 μA, IE = 0 50 VCEO IC = 2 mA, IB = 0 50 ICBO VCB = 50 V, IE = 0 50 ICEO VCE = 50 V, IB = 0 50 IEBO VEB = 6 V, IC = 0 60 NFE VCE = 10 V, IC = 5 mA 60 VCE(sat) IC = 10 mA, IB = 0.5 mA 1.2 Vi(off) VCE = 5 V, IC = 100 μA -30% 4.7	VCBO IC = 10 μA, IE = 0 50 VCEO IC = 2 mA, IB = 0 50 ICBO VCB = 50 V, IE = 0 0.1 ICEO VCE = 50 V, IB = 0 0.5 IEBO VEB = 6 V, IC = 0 0.4 hFE VCE = 10 V, IC = 5 mA 60 200 VCE(sat) IC = 10 mA, IB = 0.5 mA 0.25 Vi(on) VCE = 0.2 V, IC = 5 mA 1.2 Vi(off) VCE = 5 V, IC = 100 μA 0.5 R1 -30% 4.7 +30%

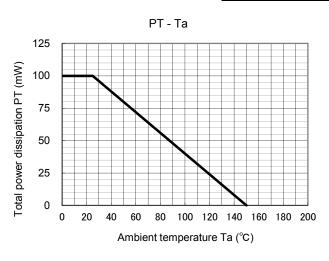
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.

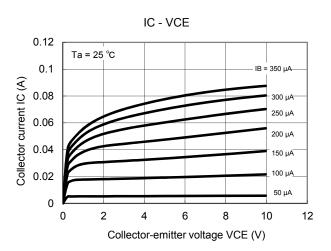
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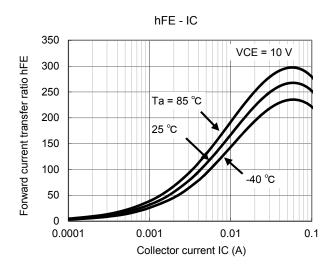
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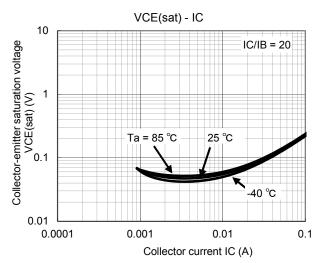
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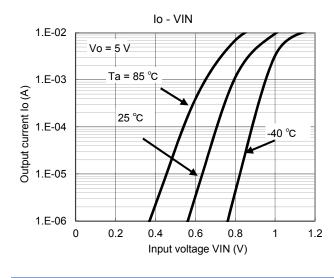
Technical Data (reference)

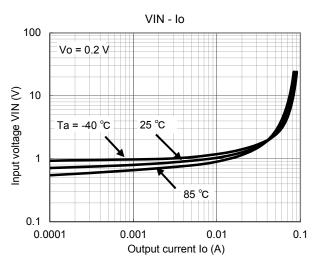












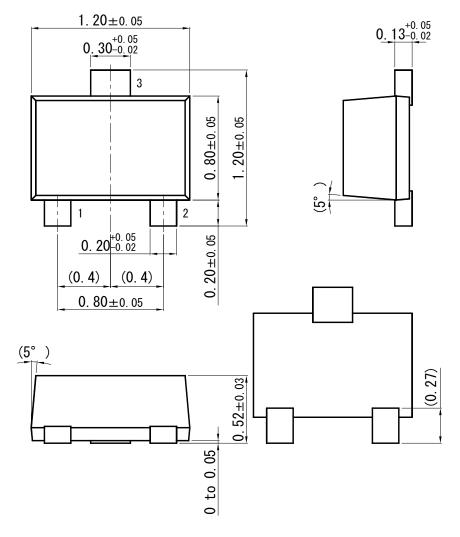
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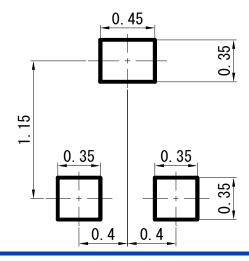
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SSSMini3-F2-B

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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