# imall

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Transistors with Built-in Resistor DRC9143Z0L

# DRC9143Z0L Silicon NPN epitaxial planar type

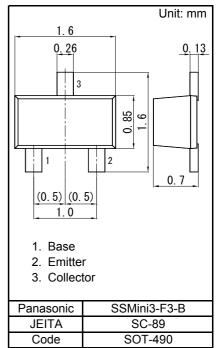
For digital circuits Complementary to DRA9143Z DRC5143Z in SSMini3 type package

#### 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): 3 000 pcs / reel (standard)



Internal Connection							
Resistance	R1	4.7	kΩ				
value	R2	47	kΩ				

### ■ 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	125	mW	
Junction temperature	Tj	150	°C	
Operating ambient temperature	Topr	-40 to +85	°C	
Storage temperature	Tstg	-55 to +150	С°	

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

Parameter	Symbol	Conditions		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	μA			
Collector-emitter cutoff current (Base open)	ICEO	VCE = 50 V, IB = 0			0.5	μA			
Emitter-base cutoff current (Collector open)	IEBO	VEB = 6 V, IC = 0			0.2	mA			
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	-			

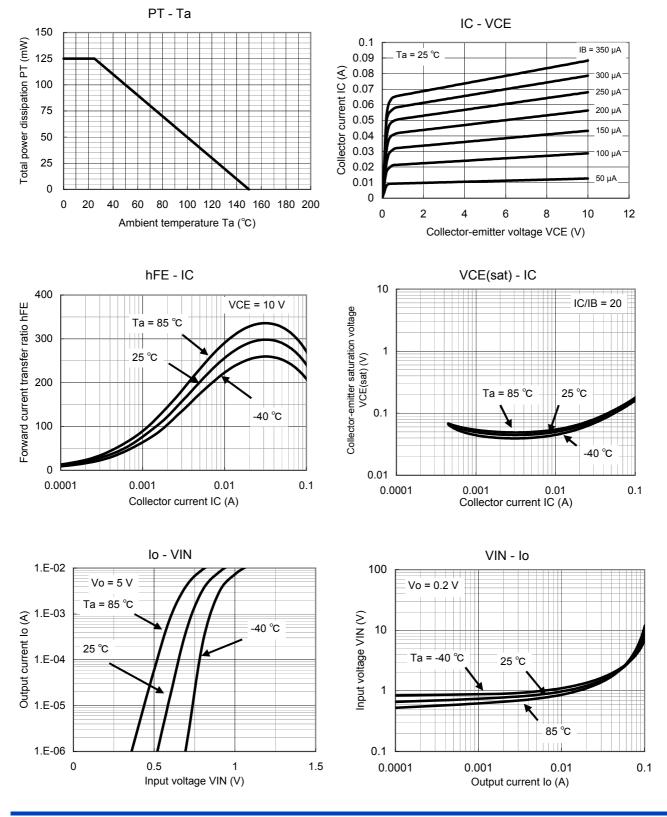
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 Measuring methods for transistors.



Transistors with Built-in Resistor DRC9143Z0L



Technical Data (reference)



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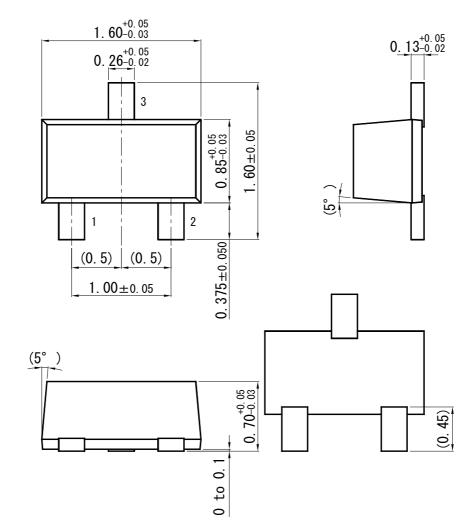
Established : 2009-10-22 Revised : 2014-03-04



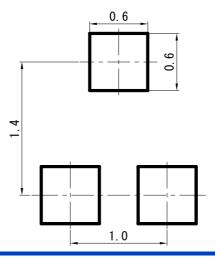
SSMini3-F3-B

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Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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