# Panasonic

Transistors with Built-in Resistor DRA2533Q0L

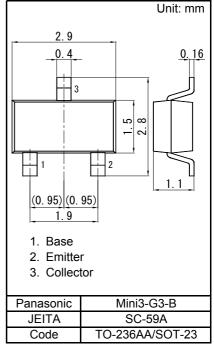
### DRA2533Q0L Silicon PNP epitaxial planar type

For digital circuits

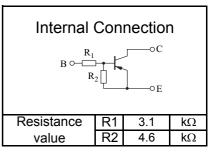
#### Features

- Low collector-emitter saturation voltage Vce(sat)
- Halogen-free / RoHS compliant
  (EU RoHS / UL-94 V-0 / MSL:Level 1 compliant)
- Marking Symbol: SU
- Packaging

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



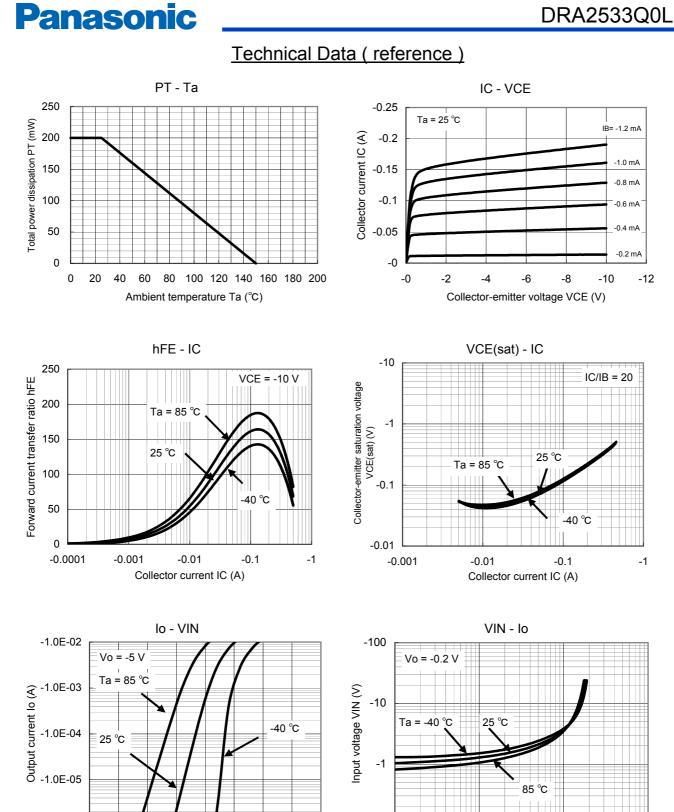
■ Absolute Maximum Ratings Ta = 25 °C							
Symbol	Rating	Unit					
VCBO	-50	V					
VCEO	-50	V					
IC	-500	mA					
PT	200	mW					
Tj	150	С°					
Topr	-40 to +85	С°					
Tstg	-55 to +150	°C					
	Symbol VCBO VCEO IC PT Tj Topr	Symbol      Rating        VCBO      -50        VCEO      -50        IC      -500        PT      200        Tj      150        Topr      -40 to +85					



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			-1	μA
Collector-emitter cutoff current (Base open)	ICEO	VCE = -50 V, IB = 0			-1	μA
Emitter-base cutoff current (Collector open)	IEBO	VEB = -6 V, IC = 0			-2	mA
Forward current transfer ratio	hFE	VCE = -10 V, IC = -100 mA	50			-
Collector-emitter saturation voltage	VCE(sat)	IC = -100 mA, IB = -5 mA			-0.25	V
Input voltage	Vi(on)	VCE = -0.2 V, IC = -50 mA	-2.7			V
	Vi(off)	VCE = -5 V, IC = -100 µA			-0.5	V
Input resistance	R1		-30%	3.1	+30%	kΩ
Resistance ratio	R1/R2		0.53	0.67	0.81	-

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

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-0.1

-0.001

-0.01

Output current Io (A)

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-1

-0.1

Established : 2010-02-04 Revised : 2014-01-23

-1.0E-06

-0

-0.5

-1

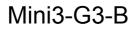
Input voltage VIN (V)

-1.5

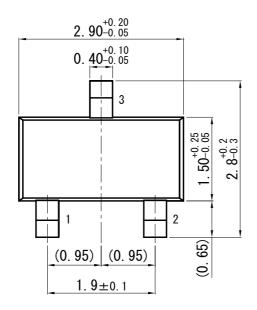
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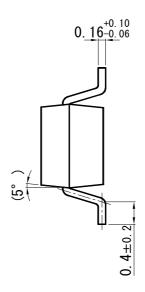


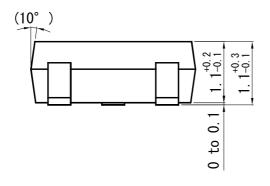
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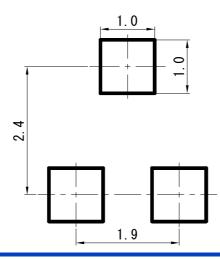
Unit: mm







Land Pattern (Reference) (Unit: mm)



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