DRCQA15T

Silicon NPN epitaxial planar type

For digital circuits
Complementary to DRAQA15T
DRC3115T in USSMini3 type package

■ Features

- High forward current transfer ratio h_{FE} with excellent linearity
- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

■ Packaging

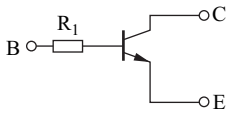
Embossed type (Thermo-compression sealing): 10000 pcs / reel (standard)

■ Package

- Code
  USSMini3-F1-B
- Pin Name
  1: Base
  2: Emitter
  3: Collector

■ Marking Symbol: F2

■ Internal Connection



Resistance value	R_1	100	kΩ

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	50	V
Collector-emitter voltage (Base open)	V_{CEO}	50	V
Collector current	I_C	80	mA
Total power dissipation	P_T	100	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	–55 to +150	°C

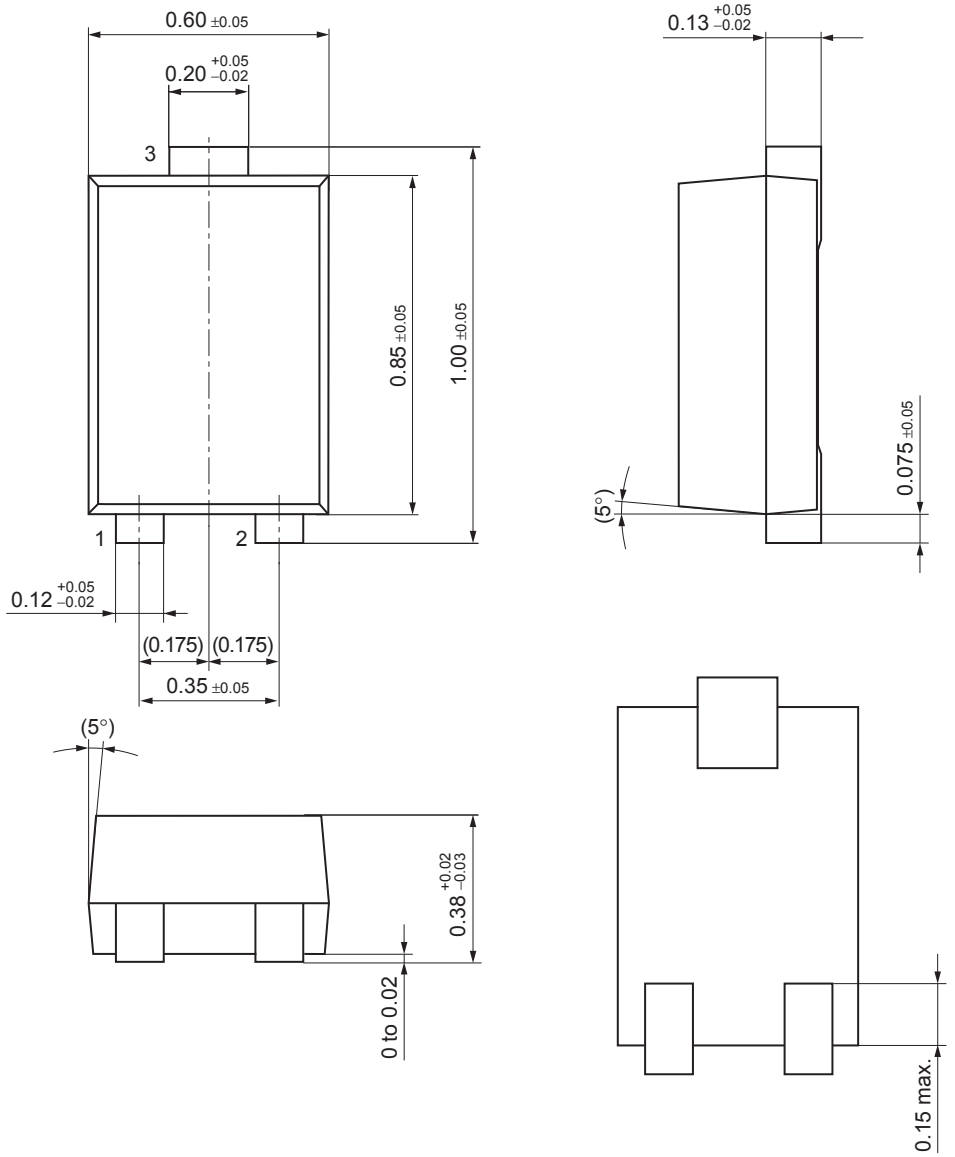
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = 10\ \mu A$, $I_E = 0$	50			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 2$ mA, $I_B = 0$	50			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 50$ V, $I_E = 0$			0.1	μA
Collector-emitter cutoff current (Base open)	I_{CEO}	$V_{CE} = 50$ V, $I_B = 0$			0.5	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 6$ V, $I_C = 0$			0.01	mA
Forward current transfer ratio	h_{FE}	$V_{CE} = 10$ V, $I_C = 5$ mA	160		460	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10$ mA, $I_B = 0.5$ mA			0.25	V
Input voltage (ON)	$V_{I(on)}$	$V_{CE} = 0.2$ V, $I_C = 5$ mA	4.3			V
Input voltage (OFF)	$V_{I(off)}$	$V_{CE} = 5$ V, $I_C = 100\ \mu A$			0.4	V
Input resistance	R_1		–30%	100	+30%	kΩ

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

USSMini3-F1-B

Unit: mm



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