

RT1N15BX SERIES

<Transistor>

Transistor With Resistor

For Switching Application

Silicon NPN Epitaxial Type

DESCRIPTION

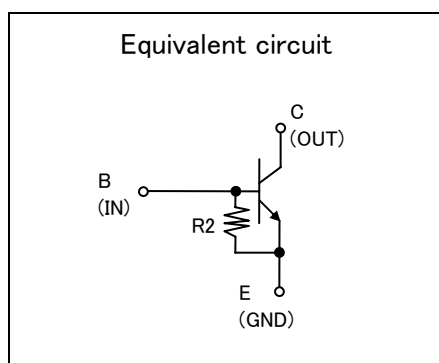
RT1N15BX is a one chip transistor with built-in bias resistor, PNP type is RT1P15BX.

FEATURE

www.DataSheet4U • Built-in bias resistor (R2=100kΩ).

APPLICATION

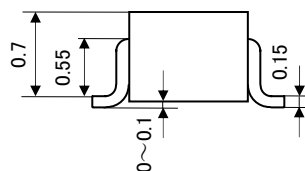
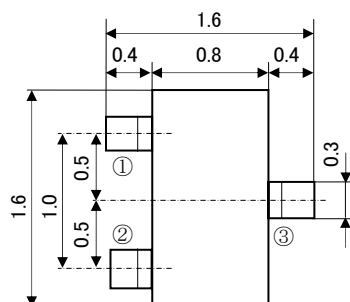
Inverted circuit, switching circuit, interface circuit, driver circuit.



OUTLINE DRAWING

UNIT : mm

RT1N15BU



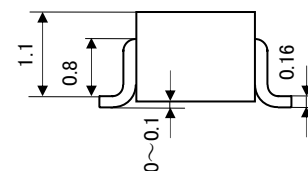
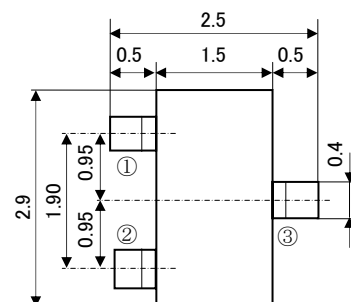
JEITA: —

JEDEC: —

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1N15BC



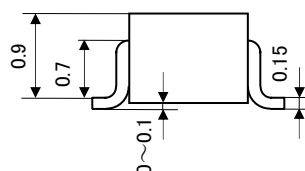
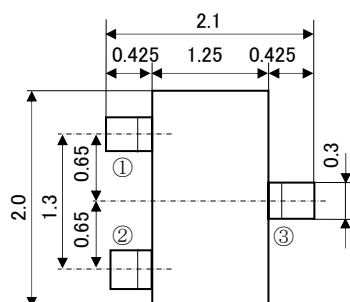
JEITA: SC-59

JEDEC: Similar to TO-236

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1N15BM



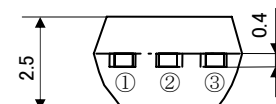
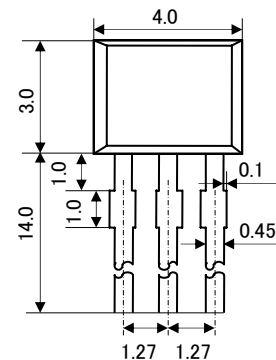
JEITA: SC-70

JEITA

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

RT1N15BS



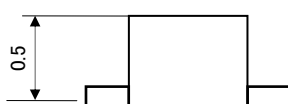
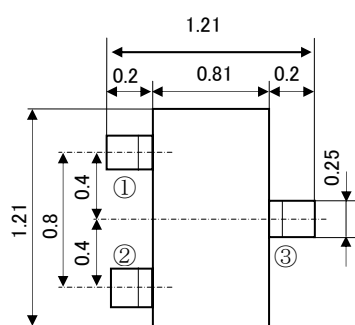
JEITA: —

JEDEC: —

Terminal Connector

- ①: Emitter
- ②: Collector
- ③: Base

RT1N15BT2



JEITA, JEITA
ISAHAYA: T-USM

Terminal Connector

- ①: Base
- ②: Emitter
- ③: Collector

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Transistor With Resistor
For Switching Application
Silicon NPN Epitaxial Type

MAXIMUM RATING (Ta=25°C)

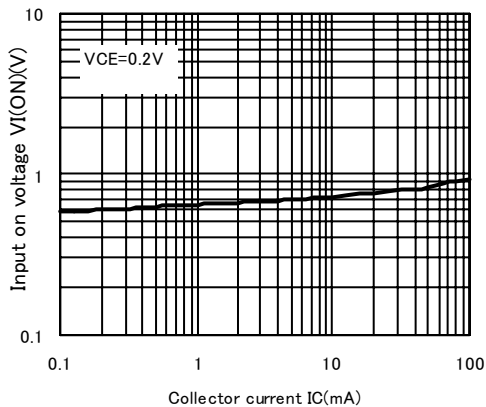
SYMBOL	PARAMETER	RATING					UNIT
		RT1N15BT2	RT1N15BU	RT1N15BM	RT1N15BC	RT1N15BS	
V_{CBO}	Collector to Base voltage	50					V
V_{EBO}	Emitter to Base voltage	6					V
V_{CEO}	Collector to Emitter voltage	50					V
I_C	Collector current	100					mA
I_{CM}	Peak Collector current	200					mA
P_C	Collector dissipation(Ta=25°C)	(※) 125	150		200	450	mW
T_j	Junction temperature	+125	+150			°C	
T_{stg}	Storage temperature	-55~+125		-55~+150			°C

ELECTRICAL CHARACTERISTICS (Ta=25°C) (※) package mounted on 9mm×19mm×1mm glass-epoxy substrate.

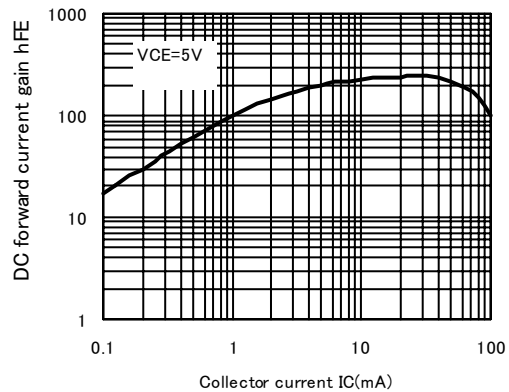
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
$V_{(BR)CEO}$	C to E break down voltage	$I_C=100\mu A, R_{BE}=\infty$	50			V
I_{CBO}	Collector cut off current	$V_{CB}=50V, I_E=0$			0.1	μA
h_{FE}	DC forward current gain	$V_{CE}=5V, I_C=5mA$	82			—
$V_{CE(sat)}$	C to E saturation voltage	$I_C=10mA, I_B=0.5mA$			0.3	V
R_2	Emitter-base resistance			100		$k\Omega$
f_T	Gain band width product	$V_{CE}=6V, I_E=-10mA$		200		MHz

TYPICAL CHARACTERISTICS

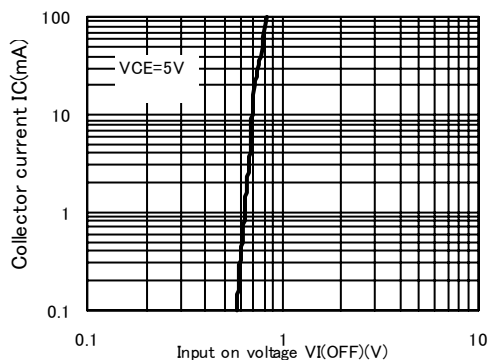
Input on voltage -Collector current



DC forward current gain hFE -Collector current



Collector current -Input off voltage





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