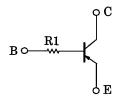
TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process)

# RN2110,RN2111

Switching, Inverter Circuit, Interface Circuit and Driver Circuit Applications

- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- Complementary to RN1110, RN1111

## **Equivalent Circuit**



## Maximum Ratings (Ta = 25°C)

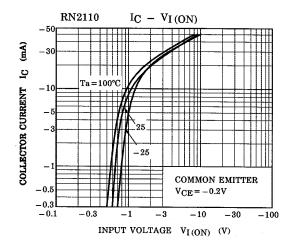
Characteristic	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	-50	V
Collector-emitter voltage	V <sub>CEO</sub>	-50	V
Emitter-base voltage	V <sub>EBO</sub>	-5	V
Collector current	I <sub>C</sub>	-100	mA
Collector power dissipation	PC	100	mW
Junction temperature	Tj	150	°C
Storage temperature range	T <sub>stg</sub>	-55~150	°C

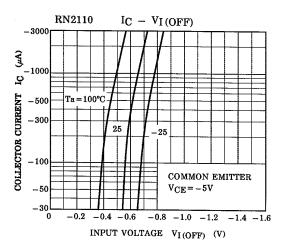
# 1. BASE 2. EMITTER 3. COLLECTOR JEDEC — EIAJ — TOSHIBA 2-2H1A

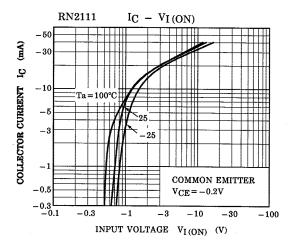
Weight: 2.4mg

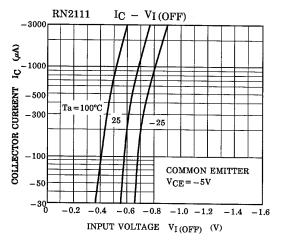
# Electrical Characteristics (Ta = 25°C)

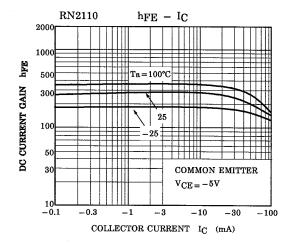
Characteristic		Symbol	Test Circuit	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current		I <sub>CBO</sub>	_	$V_{CB} = -50V$ , $I_E = 0$	_	_	-100	nA
Emitter cut-off current		I <sub>EBO</sub>	_	$V_{EB} = -5V, I_C = 0$	_	_	-100	nA
DC current gain		h <sub>FE</sub>	_	$V_{CE} = -5V, I_{C} = -1mA$	120	_	400	_
Collector-emitter saturation voltage		V <sub>CE (sat)</sub>	_	$I_C = -5mA$ , $I_B = -0.25mA$	_	-0.1	-0.3	V
Transition frequency		f <sub>T</sub>	_	$V_{CE} = -10V, I_{C} = -5mA$	_	200	_	$MH_{Z}$
Collector output capacitance		C <sub>ob</sub>	_	$V_{CB} = -10V$ , $I_E = 0$ , $f = 1MH_Z$	_	3	6	pF
Input resistor	RN2110	- R1	_	_	3.29	4.7	6.11	kΩ
	RN2111				7	10	13	

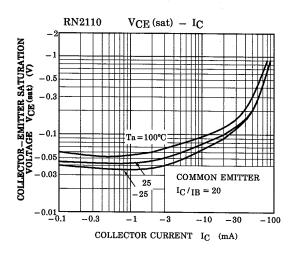


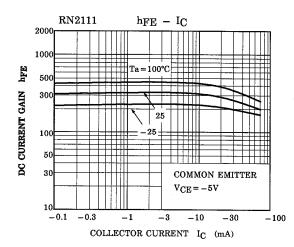


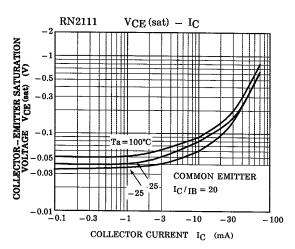












Type Name	Marking	
RN2110	Type Name Y K	
RN2111	Type Name Y M	

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000707EAA

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