

TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process)

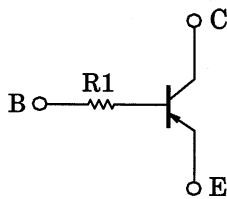
RN2110F, RN2111F

Switching, Inverter Circuit, Interface Circuit and Driver Circuit Applications

Unit : mm

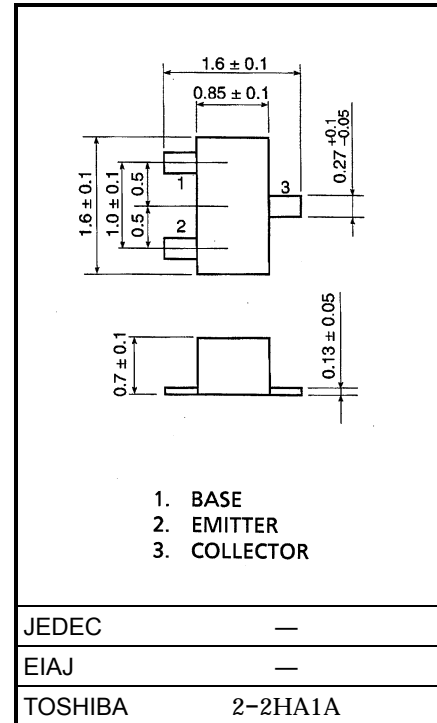
- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- Complementary to RN1110F, RN1111F

Equivalent Circuit



Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-50	V
Collector-emitter voltage	V_{CEO}	-50	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-100	mA
Collector power dissipation	P_C	100	mW
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	-55~150	°C



JEDEC	—
EIAJ	—
TOSHIBA	2-2HA1A

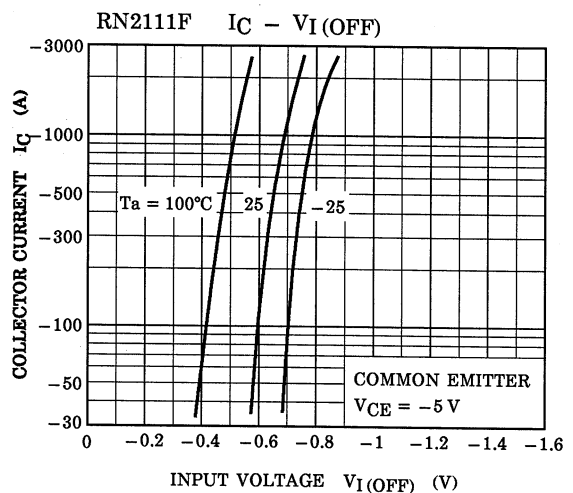
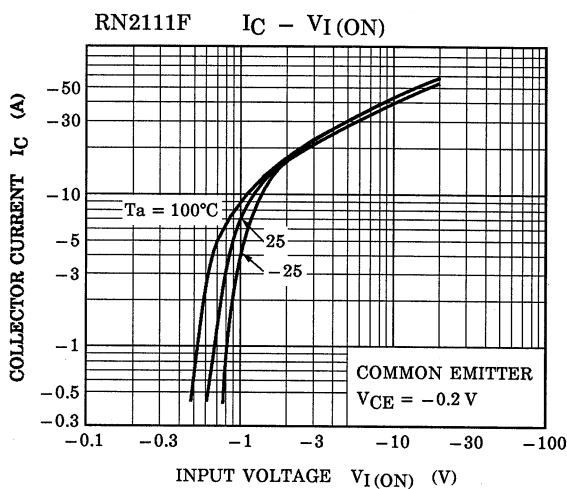
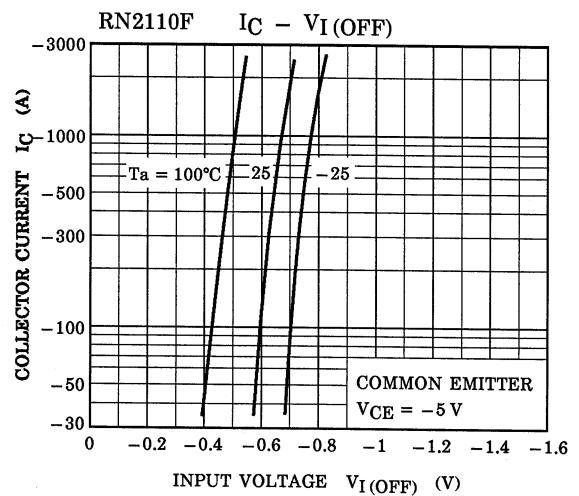
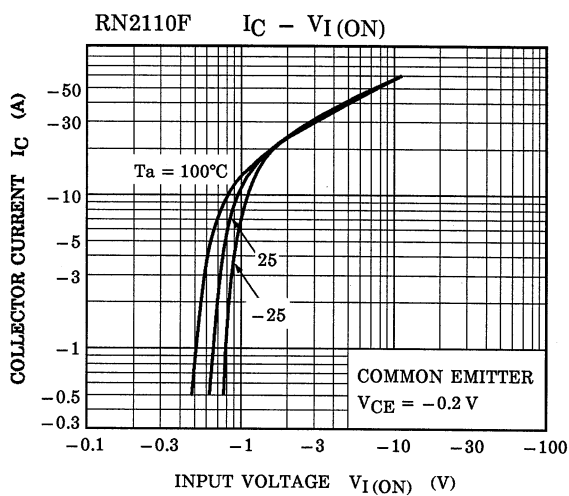
Weight : 2.3mg

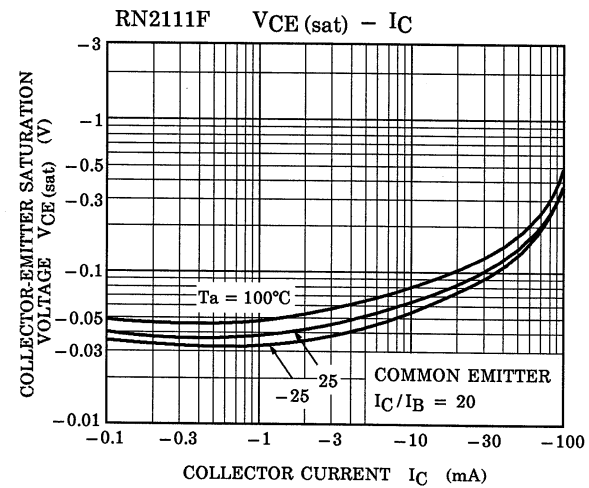
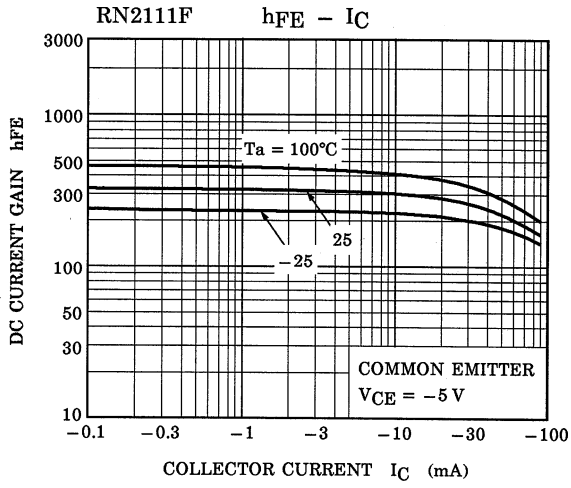
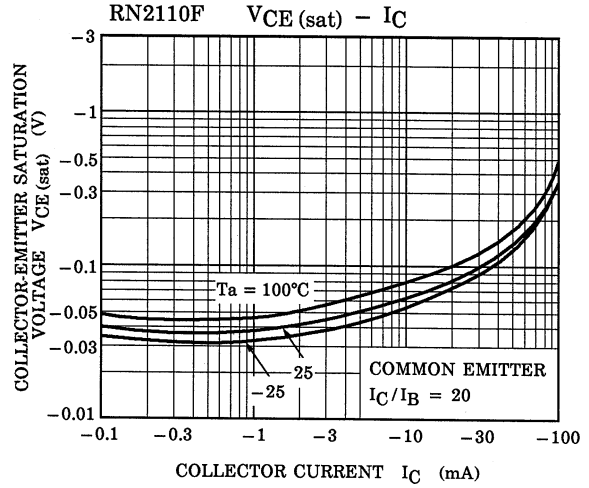
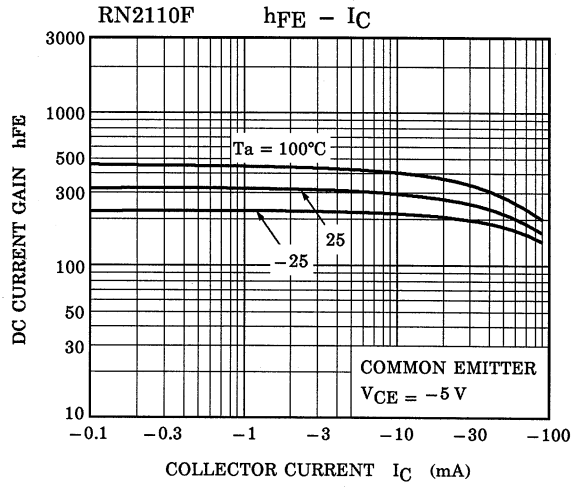
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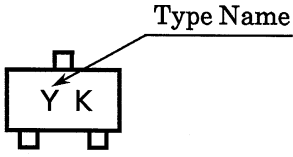
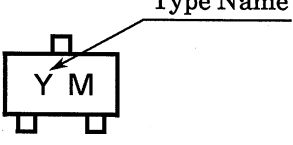
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Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	I_{CBO}	—	$V_{CB} = -50V, I_E = 0$	—	—	-100	nA
Emitter cut-off current	I_{EBO}	—	$V_{EB} = -5V, I_C = 0$	—	—	-100	nA
DC current gain	h_{FE}	—	$V_{CE} = -5V, I_C = -1mA$	120	—	400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	$I_C = -5mA, I_B = -0.25mA$	—	-0.1	-0.3	V
Transition frequency	f_T	—	$V_{CE} = -10V, I_C = -5mA$	—	200	—	MHz
Collector output capacitance	C_{ob}	—	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	3	6	pF
Input resistor	RN2110F	R1	—	3.29	4.7	6.11	kΩ
	RN2111F			7	10	13	





Type Name	Marking
RN2110F	 <p>The diagram shows a rectangular component with a small square protrusion on top and two small square protrusions on the bottom. The letters 'Y K' are printed on the front face. An arrow points from the text 'Type Name' to the 'Y' character.</p>
RN2111F	 <p>The diagram shows a rectangular component with a small square protrusion on top and two small square protrusions on the bottom. The letters 'Y M' are printed on the front face. An arrow points from the text 'Type Name' to the 'Y' character.</p>