

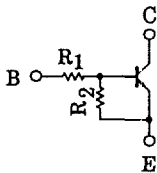
RN2314, 2315, 2316 RN2317, 2318

(RN2314)

SWITCHING, INVERTER CIRCUIT, INTERFACE CIRCUIT
AND DRIVER CIRCUIT APPLICATIONS.

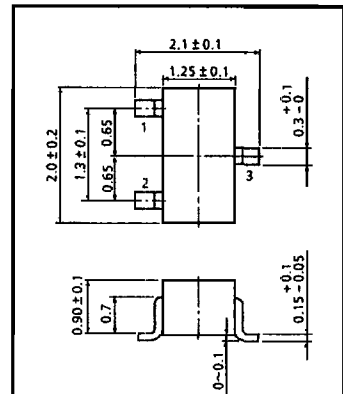
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- Complementary to RN1314~RN1318

EQUIVALENT CIRCUIT AND BIAS RESISTOR VALUES



TYPE No.	R ₁ (kΩ)	R ₂ (kΩ)
RN2314	1	10
RN2315	2.2	10
RN2316	4.7	10
RN2317	10	4.7
RN2318	47	10

Unit in mm



1. BASE
2. EMITTER
3. COLLECTOR

USM

JEDEC —

EIAJ SC-70

TOSHIBA 2-2E1A

Weight : 0.006g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	RN2314~2318	V _{CB0}	-50	V
Collector-Emitter Voltage		V _{CE0}	-50	V
Emitter-Base Voltage	RN2314	V _{EB0}	-5	V
	RN2315		-6	
	RN2316		-7	
	RN2317		-15	
	RN2318		-25	
Collector Current	RN2314~2318	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

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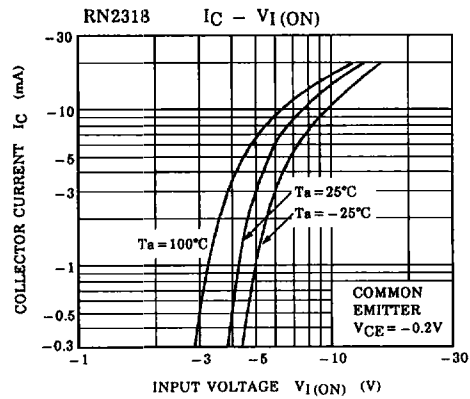
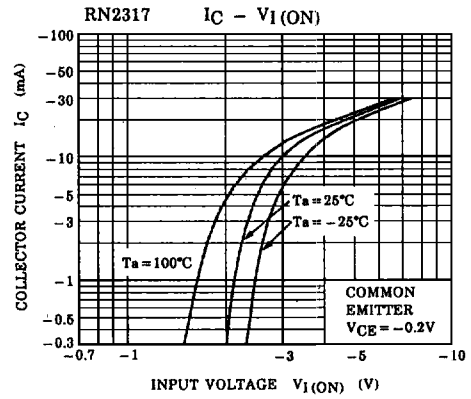
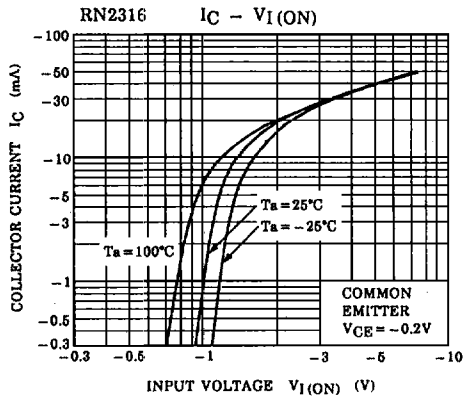
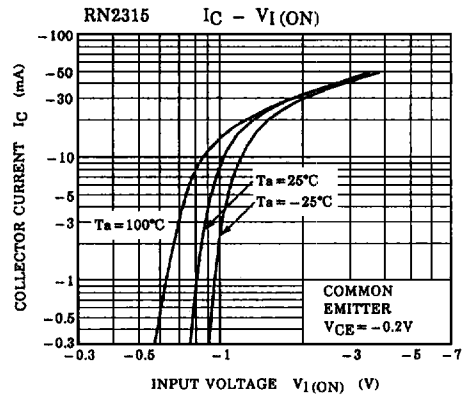
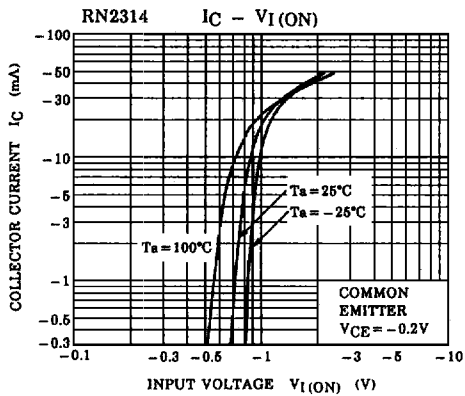
(RN2314)

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	RN2314~2318	ICBO	V _{CB} = -50V, I _E = 0	—	—	-100	nA
	RN2314~2318	ICEO	V _{CE} = -50V, I _B = 0	—	—	-500	nA
Emitter Cut-off Current	RN2314	IEBO	V _{EB} = -5V, I _C = 0	-0.35	—	-0.65	mA
	RN2315		V _{EB} = -6V, I _C = 0	-0.37	—	-0.71	
	RN2316		V _{EB} = -7V, I _C = 0	-0.36	—	-0.68	
	RN2317		V _{EB} = -15V, I _C = 0	-0.78	—	-1.46	
	RN2318		V _{EB} = -25V, I _C = 0	-0.33	—	-0.63	
DC Current Gain	RN2314~16, 18	h _{FE}	V _{CE} = -5V, I _C = -10mA	50	—	—	
	RN2317			30	—	—	
Collector-Emitter Saturation Voltage	RN2314~2318	V _{CE(sat)}	I _C = -5mA, I _B = -0.25mA	—	-0.1	-0.3	V
Input Voltage (ON)	RN2314	V _{I(ON)}	V _{CE} = -0.2V, I _C = -5mA	-0.5	—	-2.0	V
	RN2315			-0.6	—	-2.5	
	RN2316			-0.7	—	-2.5	
	RN2317			-1.5	—	-3.5	
	RN2318			-2.5	—	-10.0	
Input Voltage (OFF)	RN2314	V _{I(OFF)}	V _{CE} = -5V, I _C = -0.1mA	-0.3	—	-0.9	V
	RN2315			-0.3	—	-1.0	
	RN2316			-0.3	—	-1.1	
	RN2317			-0.3	—	-3.0	
	RN2318			-0.5	—	-5.7	
Transition Frequency	RN2314~2318	f _T	V _{CE} = -10V, I _C = -5mA	—	200	—	MHz
Collector Output Capacitance	RN2314~2318	C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz	—	3.0	6.0	pF
Input Resistor	RN2314	R ₁	—	0.7	1.0	1.3	kΩ
	RN2315			1.54	2.2	2.86	
	RN2316			3.29	4.7	6.11	
	RN2317			7.0	10.0	13.0	
	RN2318			32.9	47.0	61.1	
Resistor Ratio	RN2314	R ₁ / R ₂	—	—	0.1	—	
	RN2315			—	0.22	—	
	RN2316			—	0.47	—	
	RN2317			—	2.13	—	
	RN2318			—	4.7	—	

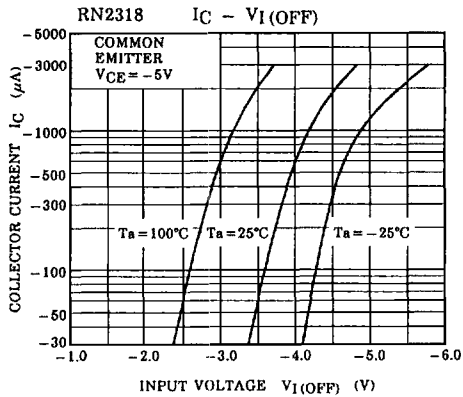
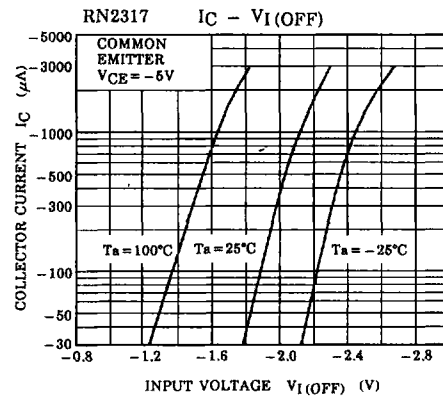
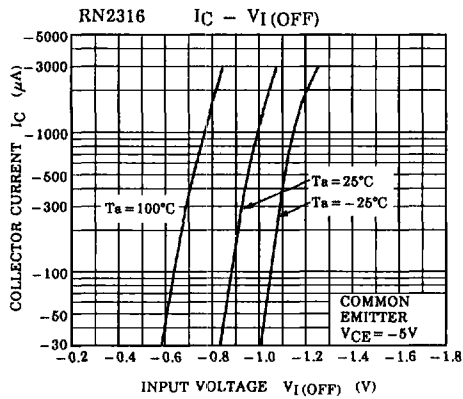
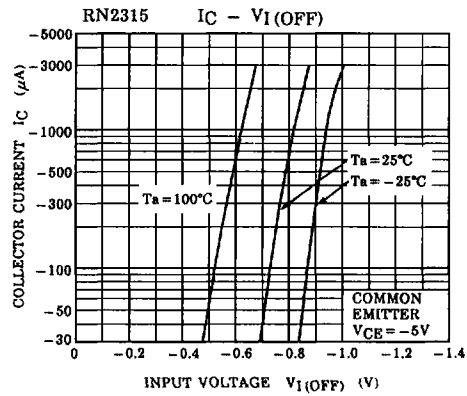
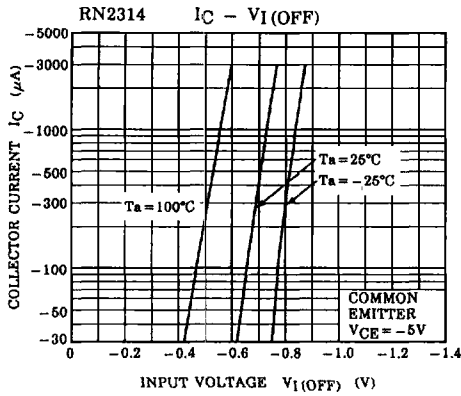
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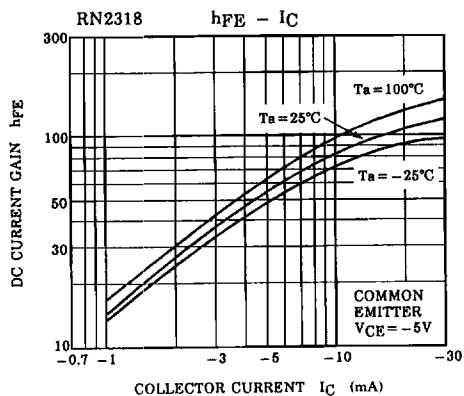
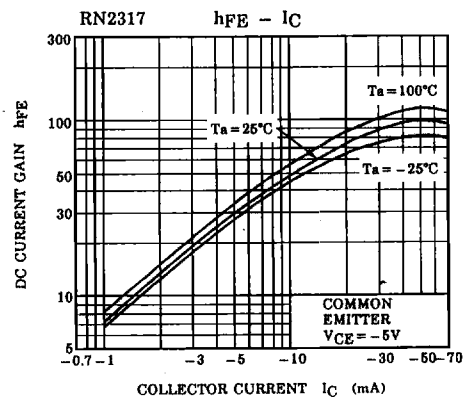
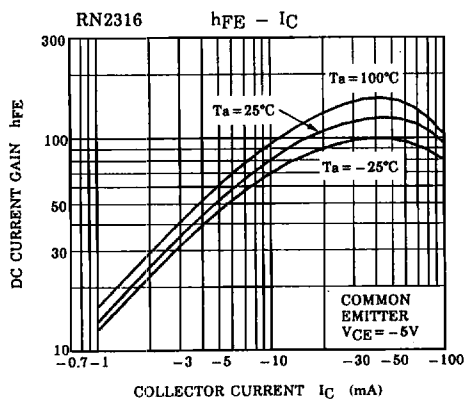
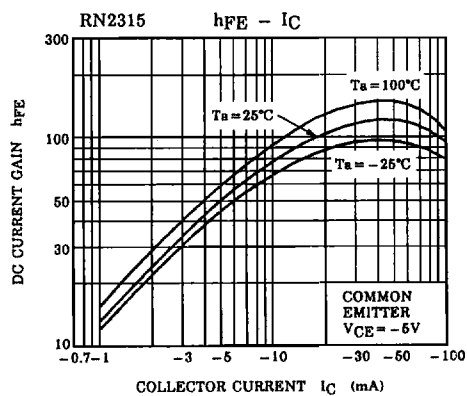
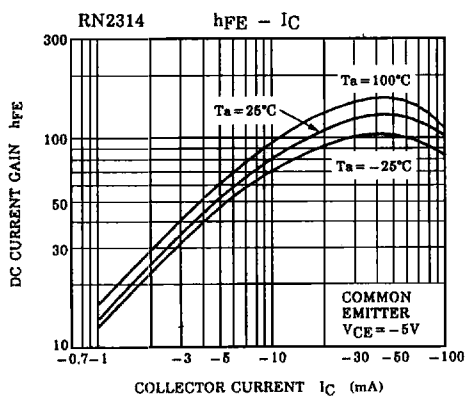
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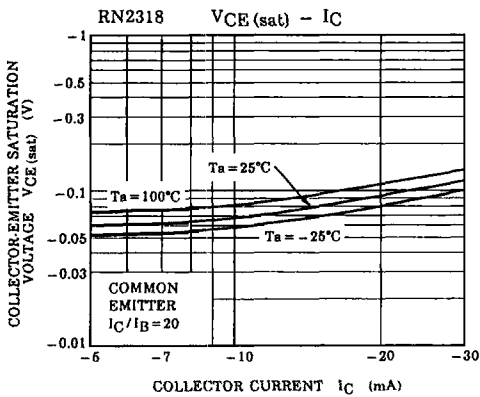
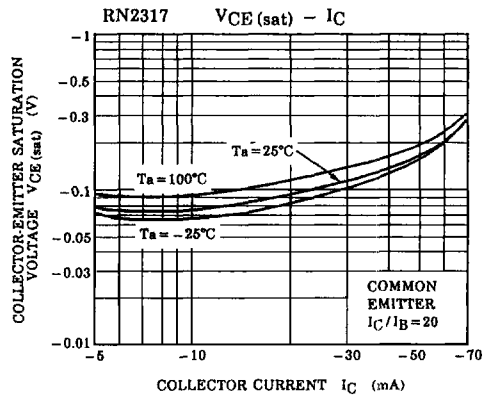
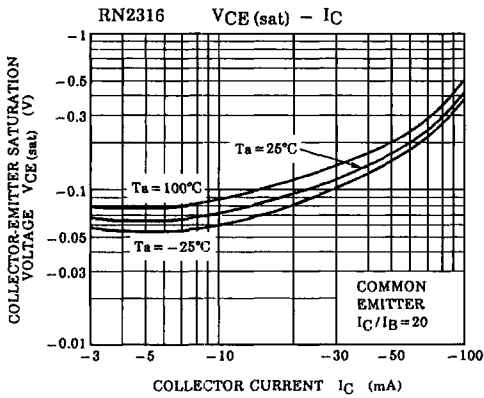
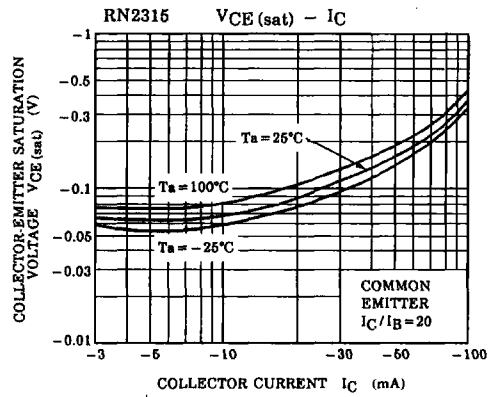
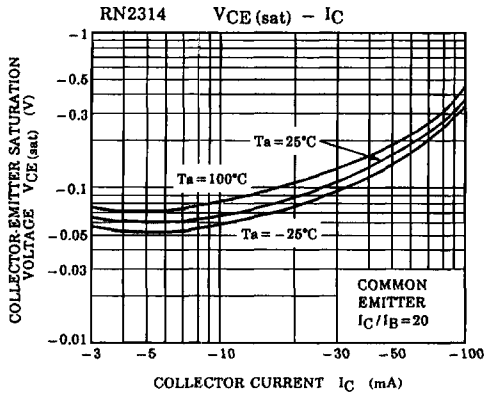
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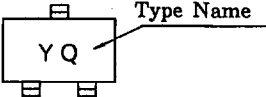
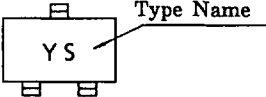
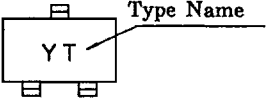
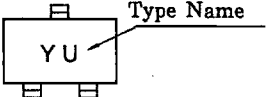
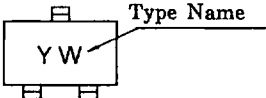
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**RN2314, 2315, 2316
RN2317, 2318**

(RN2314)

TYPE NAME	MARKING
RN2314	 <p>The diagram shows a rectangular box with the letters 'YQ' inside. Above the box is a small square with a horizontal line through it. Below the box are two small squares, one on the left and one on the right. A line points from the text 'Type Name' to the right side of the box.</p>
RN2315	 <p>The diagram shows a rectangular box with the letters 'YS' inside. Above the box is a small square with a horizontal line through it. Below the box are two small squares, one on the left and one on the right. A line points from the text 'Type Name' to the right side of the box.</p>
RN2316	 <p>The diagram shows a rectangular box with the letters 'YT' inside. Above the box is a small square with a horizontal line through it. Below the box are two small squares, one on the left and one on the right. A line points from the text 'Type Name' to the right side of the box.</p>
RN2317	 <p>The diagram shows a rectangular box with the letters 'YU' inside. Above the box is a small square with a horizontal line through it. Below the box are two small squares, one on the left and one on the right. A line points from the text 'Type Name' to the right side of the box.</p>
RN2318	 <p>The diagram shows a rectangular box with the letters 'YW' inside. Above the box is a small square with a horizontal line through it. Below the box are two small squares, one on the left and one on the right. A line points from the text 'Type Name' to the right side of the box.</p>