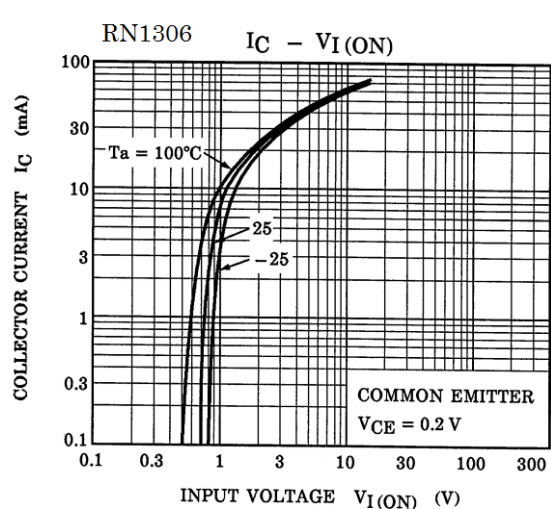
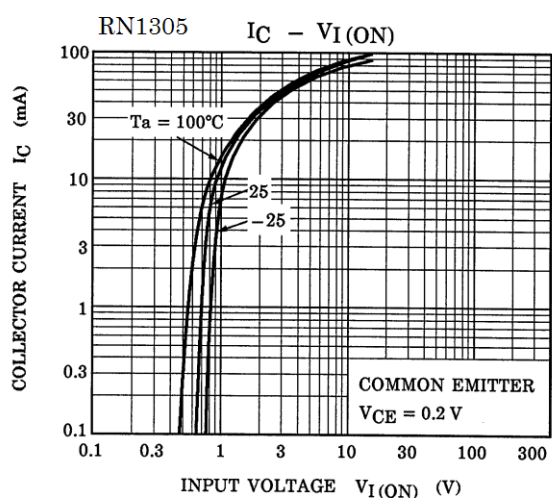
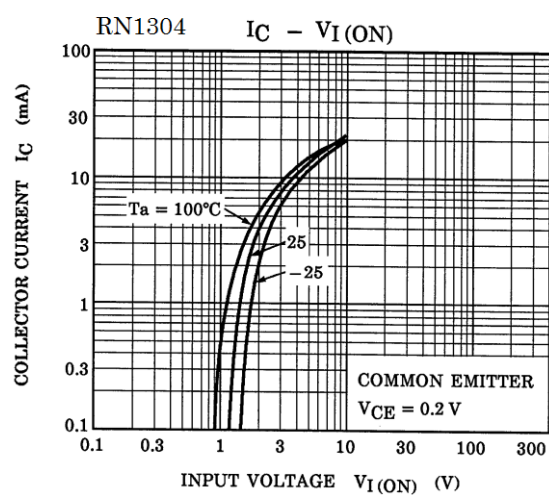
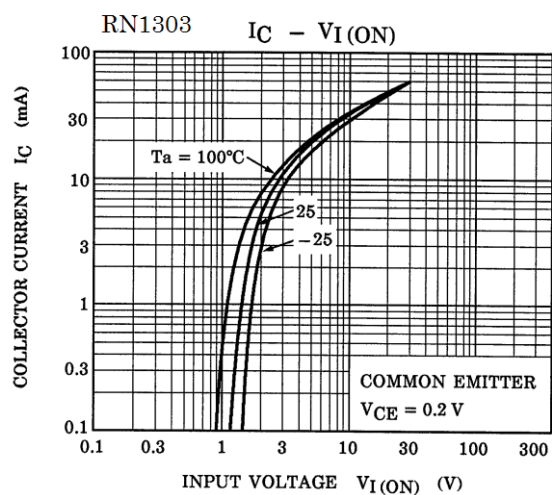
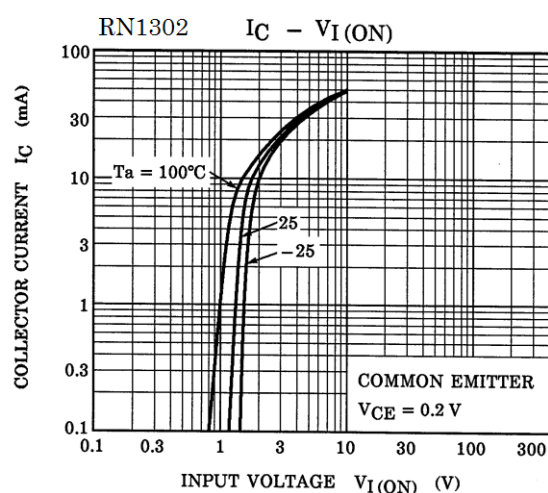
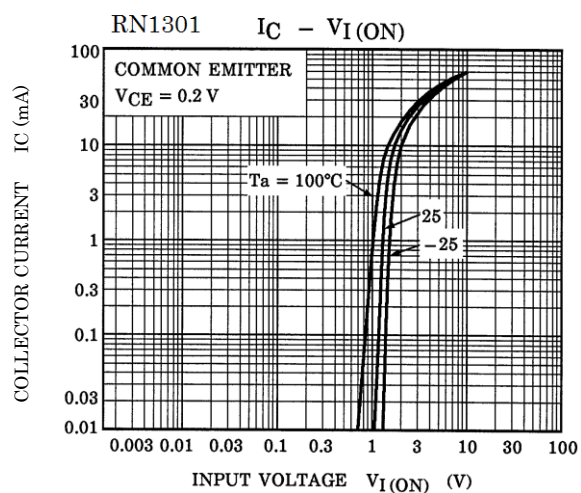
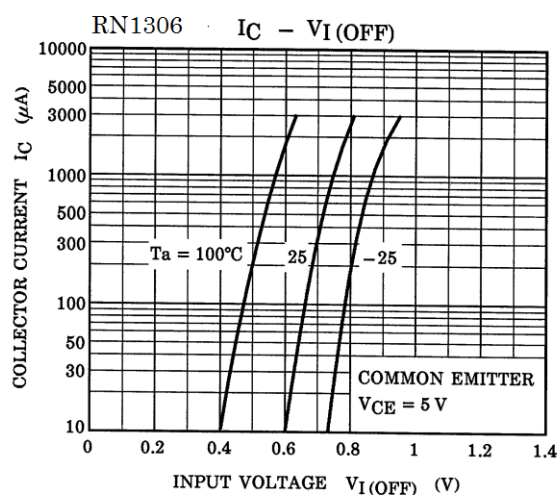
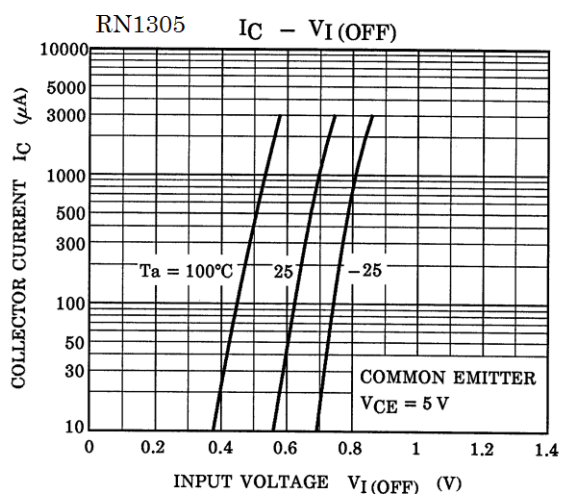
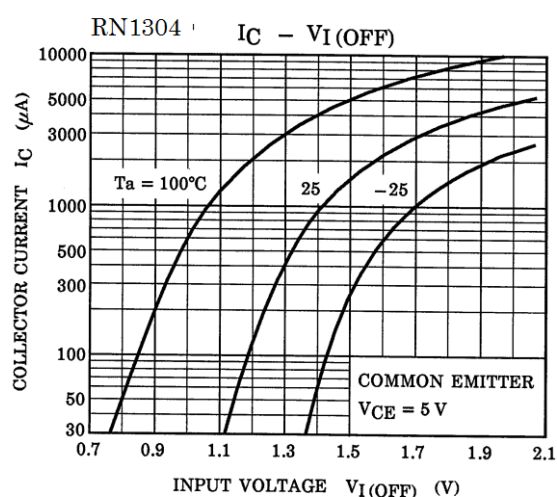
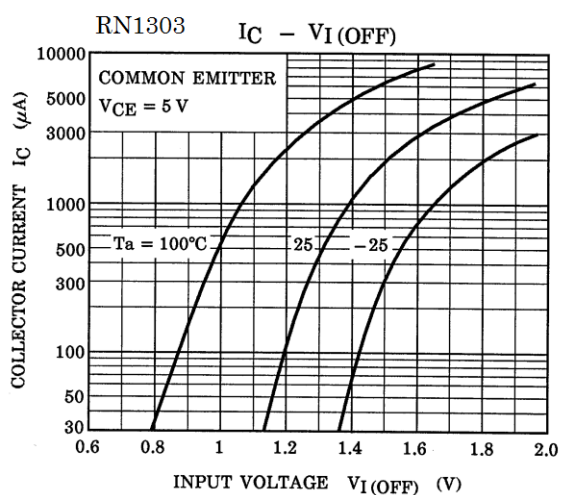
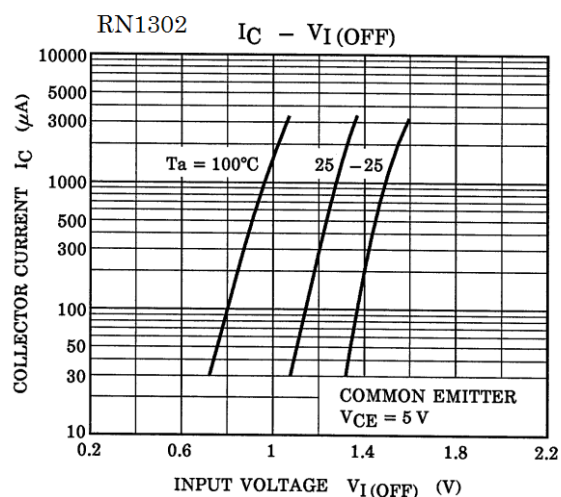
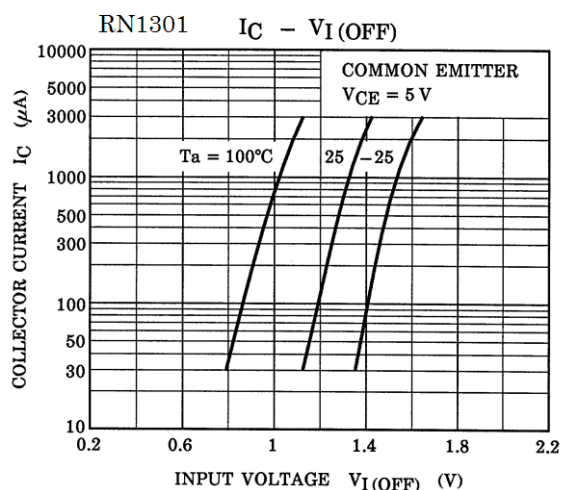


Electrical Characteristics (Ta = 25°C)

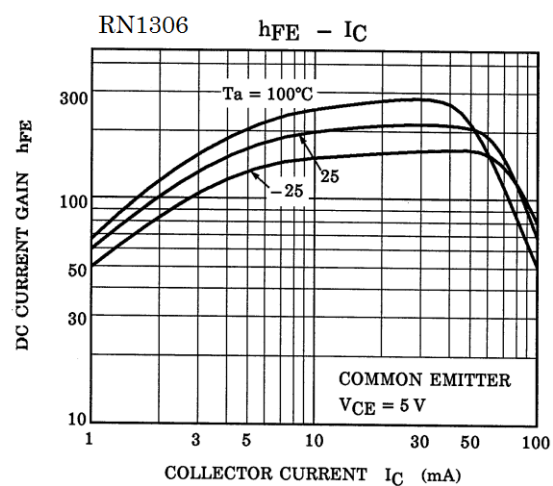
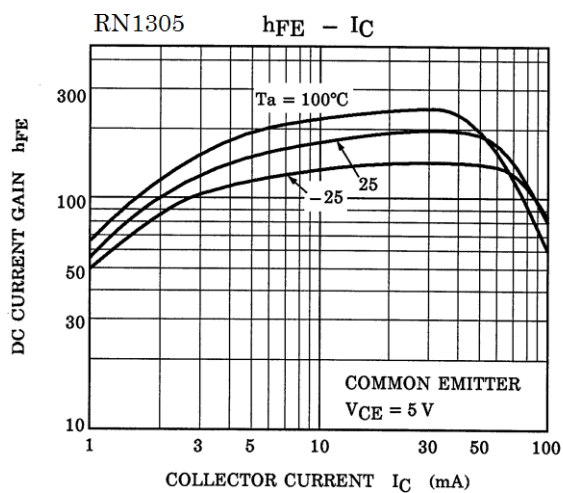
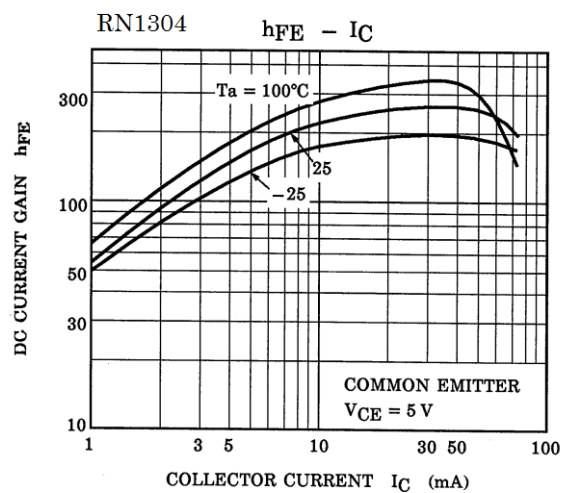
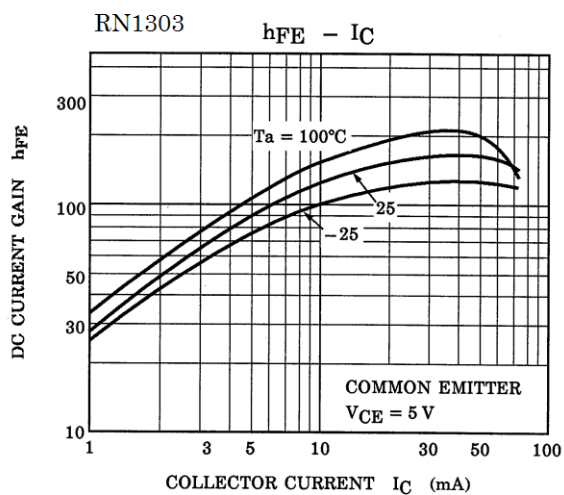
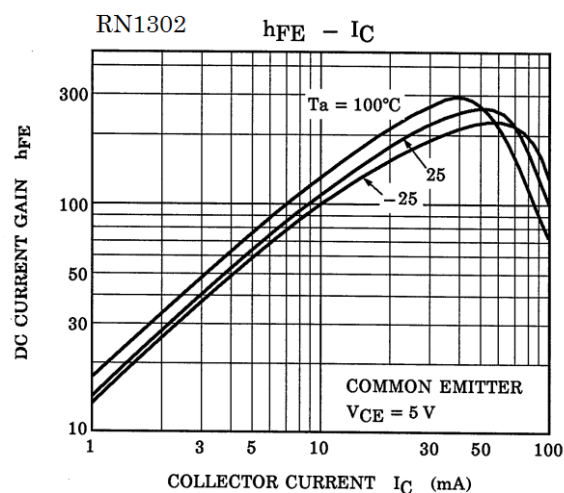
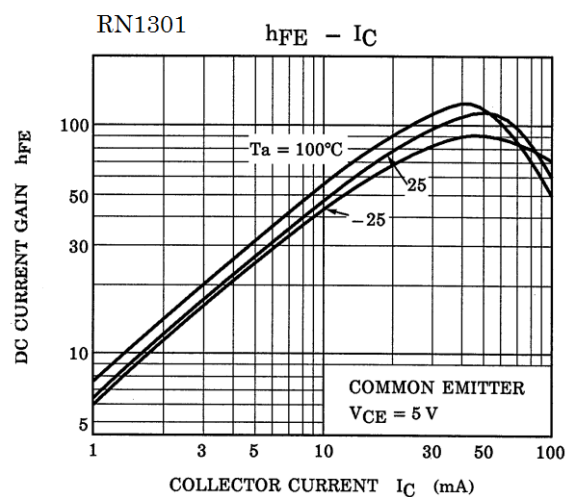
Characteristic		Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	RN1301 to 1306	I_{CBO}	—	$V_{CB} = 50 \text{ V}, I_E = 0 \text{ mA}$	—	—	100	nA
		I_{CEO}	—	$V_{CE} = 50 \text{ V}, I_B = 0 \text{ mA}$	—	—	500	
Emitter cut-off current	RN1301	I_{EBO}	—	$V_{EB} = 10 \text{ V}, I_C = 0 \text{ mA}$	0.82	—	1.52	mA
	RN1302		—		0.38	—	0.71	
	RN1303		—		0.17	—	0.33	
	RN1304		—		0.082	—	0.15	
	RN1305		—	$V_{EB} = 5 \text{ V}, I_C = 0 \text{ mA}$	0.078	—	0.145	
	RN1306		—		0.074	—	0.138	
DC current gain	RN1301	h_{FE}	—	$V_{CE} = 5 \text{ V}, I_C = 10 \text{ mA}$	30	—	—	—
	RN1302		—		50	—	—	
	RN1303		—		70	—	—	
	RN1304		—		80	—	—	
	RN1305		—		80	—	—	
	RN1306		—		80	—	—	
Collector-emitter saturation voltage	RN1301 to RN1306	$V_{CE(sat)}$	—	$I_C = 5 \text{ mA}, I_B = 0.25 \text{ mA}$	—	0.1	0.3	V
Input voltage (ON)	RN1301	$V_{I(ON)}$	—	$V_{CE} = 0.2 \text{ V}, I_C = 5 \text{ mA}$	1.1	—	2.0	V
	RN1302		—		1.2	—	2.4	
	RN1303		—		1.3	—	3.0	
	RN1304		—		1.5	—	5.0	
	RN1305		—		0.6	—	1.1	
	RN1306		—		0.7	—	1.3	
Input voltage (OFF)	RN1301 to RN1304	$V_{I(OFF)}$	—	$V_{CE} = 5 \text{ V}, I_C = 0.1 \text{ mA}$	1.0	—	1.5	V
	RN1305, RN1306		—		0.5	—	0.8	
Transition frequency	RN1301 to RN1306	f_T	—	$V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$	—	250	—	MHz
Collector output capacitance	RN1301 to RN1306	C_{ob}	—	$V_{CB} = 10 \text{ V}, I_E = 0 \text{ mA}, f = 1 \text{ MHz}$	—	3	6	pF
Input resistor	RN1301	R1	—	—	3.29	4.7	6.11	kΩ
	RN1302		—		7	10	13	
	RN1303		—		15.4	22	28.6	
	RN1304		—		32.9	47	61.1	
	RN1305		—		1.54	2.2	2.86	
	RN1306		—		3.29	4.7	6.11	
Resistor ratio	RN1301 to RN1304	R1/R2	—	—	0.9	1.0	1.1	—
	RN1305		—		0.0421	0.0468	0.0515	
	RN1306		—		0.09	0.1	0.11	



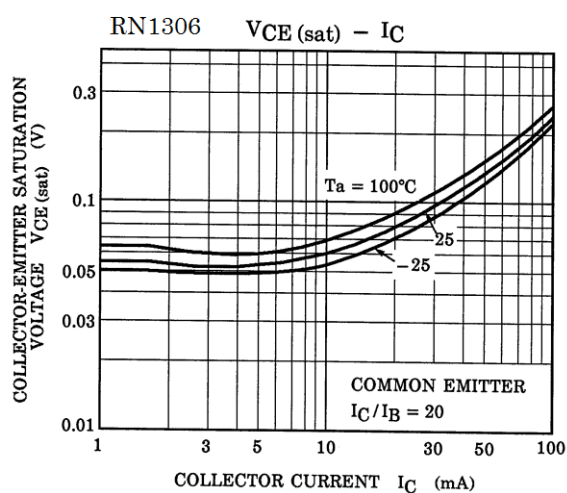
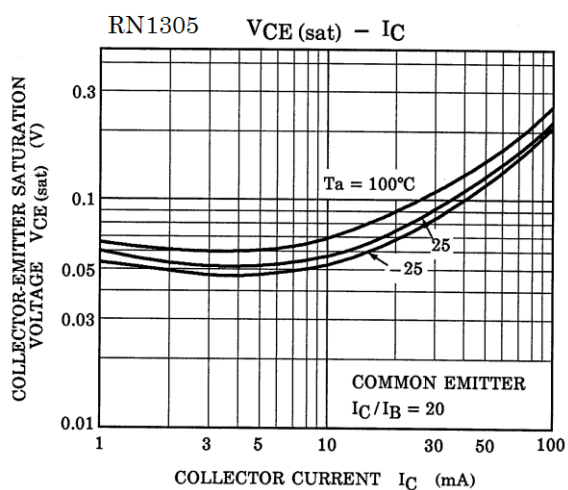
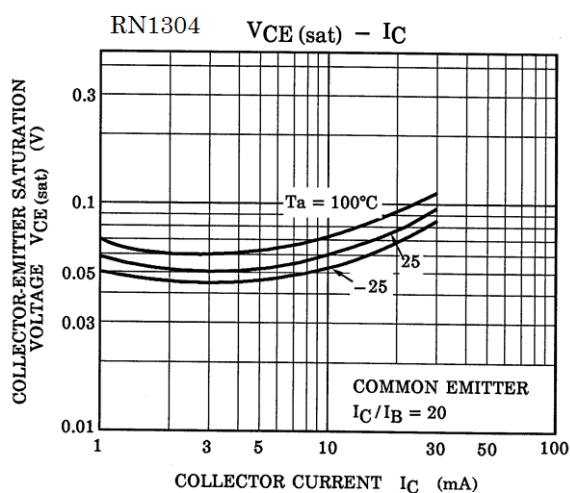
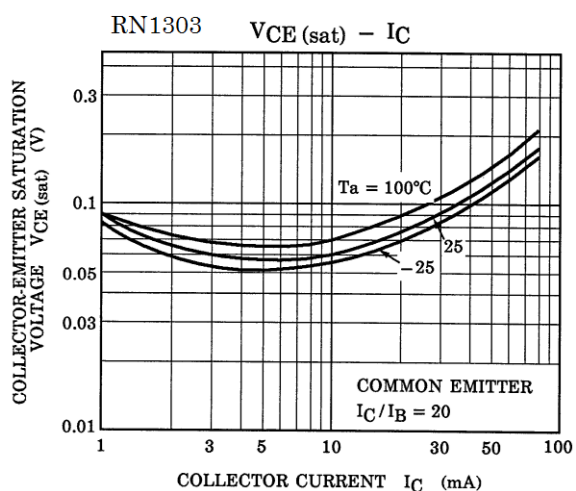
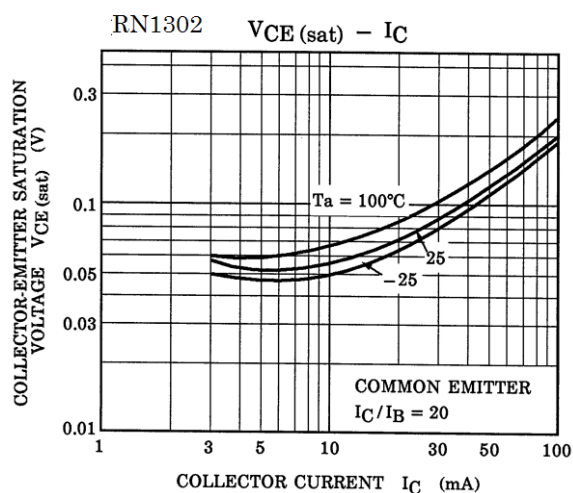
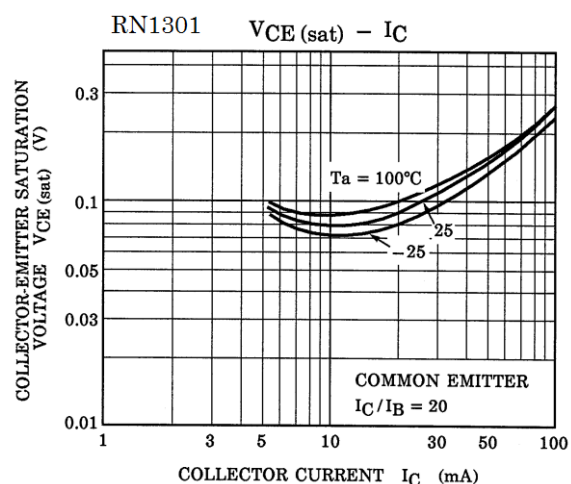
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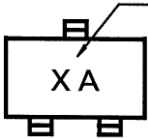
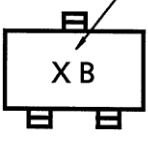
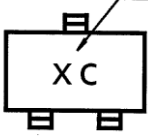
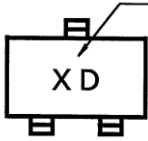
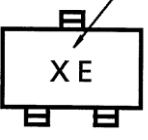
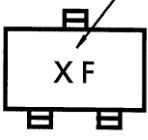


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Marking

Part No.	Marking
RN1301	Part No.(abbreviation code) 
RN1302	Part No.(abbreviation code) 
RN1303	Part No.(abbreviation code) 
RN1304	Part No.(abbreviation code) 
RN1305	Part No.(abbreviation code) 
RN1306	Part No.(abbreviation code) 

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