

RN1001, 1002, 1003 RN1004, 1005, 1006

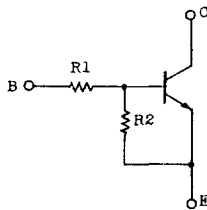
SWITCHING, INVERTER CIRCUIT, INTERFACE CIRCUIT
AND DRIVER CIRCUIT APPLICATIONS.

Unit in mm

FEATURES:

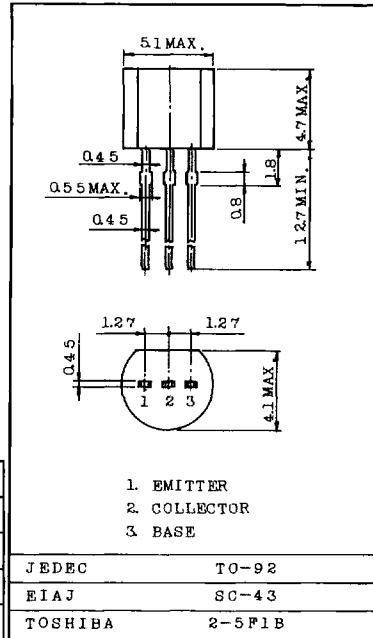
- . With Built-in Bias Resistors
- . Simplify Circuit Design
- . Reduce a Quantity of Parts and Manufacturing Process
- . Complementary to RN2001~2006

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

TYPE No.	R1 (kΩ)	R2 (kΩ)
RN1001	4.7	4.7
RN1002	10	10
RN1003	22	22
RN1004	47	47
RN1005	2.2	47
RN1006	4.7	47



Weight : 0.21g

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	RN1001~1006	V _{CB0}	50 V
Collector-Emitter Voltage		V _{CE0}	50 V
Emitter-Base Voltage	RN1001~1004	V _{EB0}	10 V
		RN1005, 1006	5 V
Collector Current	RN1001~1006	I _C	100 mA
Collector Power Dissipation		P _C	400 mW
Junction Temperature		T _j	150 °C
Storage Temperature Range		T _{stg}	-55 ~ 150 °C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

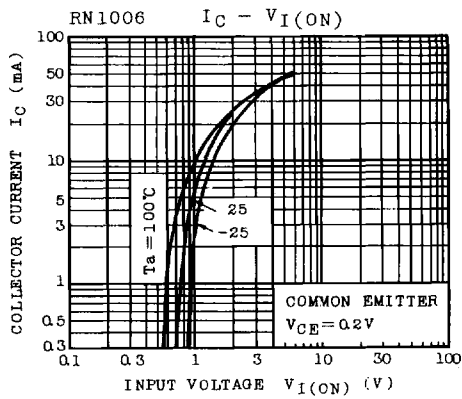
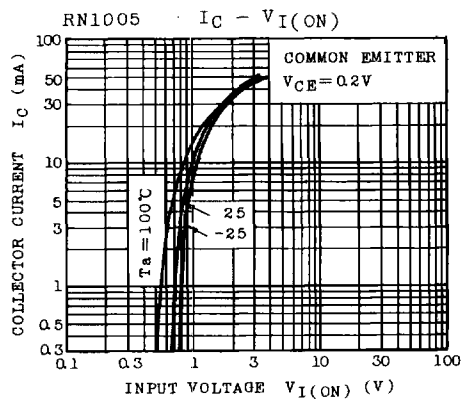
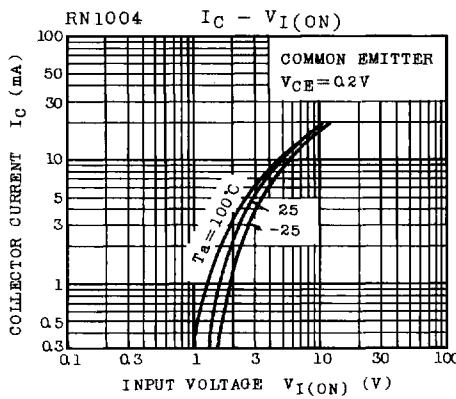
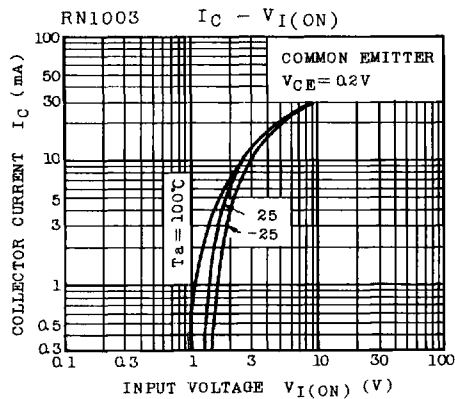
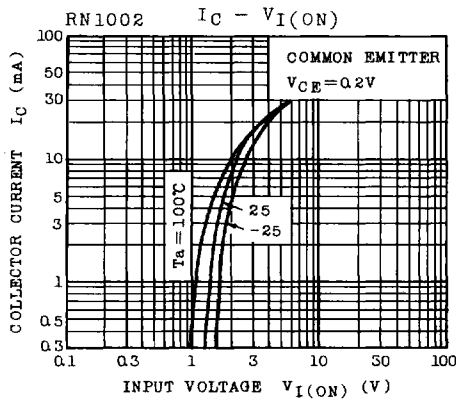
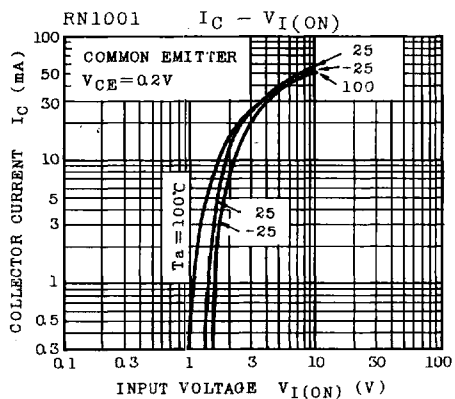
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	RN1001~1006	I _{CB0}	V _{CB} =50V, I _E =0	-	-	100 nA
		I _{CE0}	V _{CE} =50V, I _B =0	-	-	500 nA

**RN1001, 1002, 1003
RN1004, 1005, 1006**

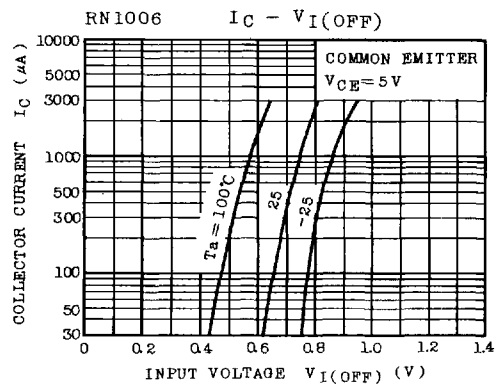
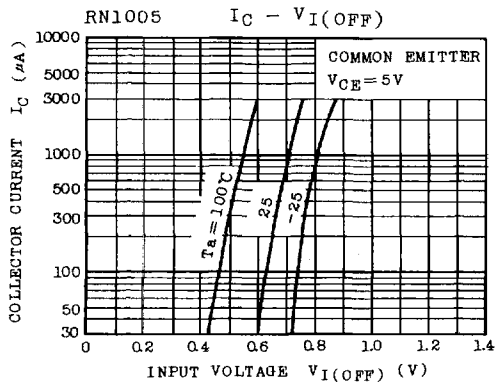
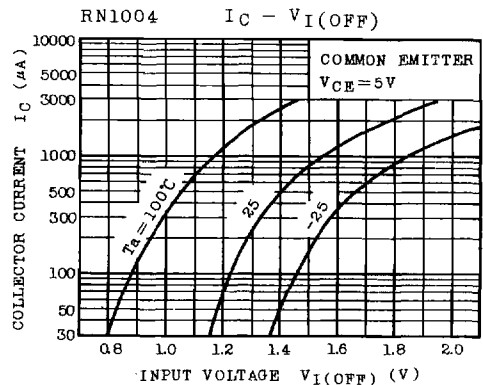
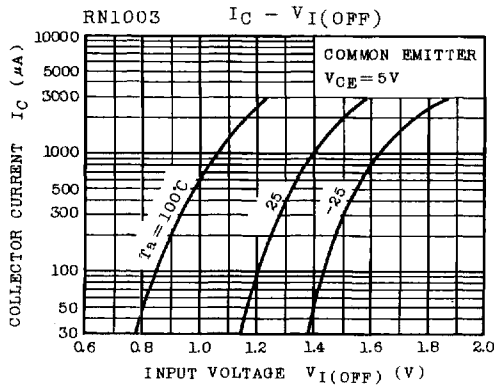
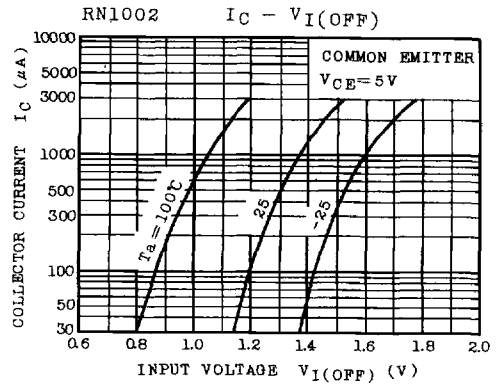
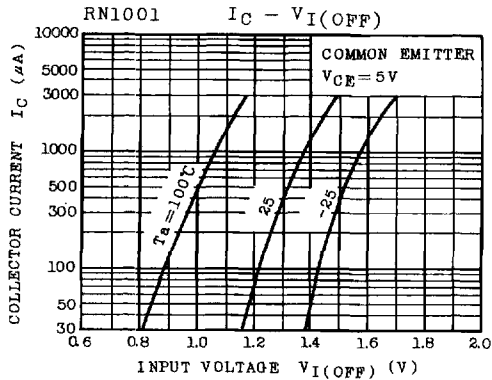
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Emitter Cut-off Current	RN1001	I _{EBO}	V _{EB} =10V, I _C =0	0.82	-	1.52	mA
	RN1002			0.38	-	0.71	
	RN1003			0.17	-	0.33	
	RN1004			0.082	-	0.15	
	RN1005		V _{EB} =5V, I _C =0	0.078	-	0.145	
	RN1006			0.074	-	0.138	
DC Current Gain	RN1001	h _{FE}	V _{CE} =5V, I _C =10mA	30	-	-	-
	RN1002			50	-	-	
	RN1003			70	-	-	
	RN1004			80	-	-	
	RN1005			80	-	-	
	RN1006			80	-	-	
Collector-Emitter Saturation Voltage	RN1001 ~ 1006	V _{CE(sat)}	I _C =5mA I _B =0.25mA	-	0.1	0.3	V
Input Voltage (ON)	RN1001	V _{I(ON)}	V _{CE} =0.2V, I _C =5mA	1.1	-	2.0	V
	RN1002			1.2	-	2.4	
	RN1003			1.3	-	3.0	
	RN1004			1.5	-	5.0	
	RN1005			0.6	-	1.1	
	RN1006			0.7	-	1.3	
Input Voltage (OFF)	RN1001 ~ 1004	V _{I(OFF)}	V _{CE} =5V, I _C =0.1mA	1.0	-	1.5	V
	RN1005 ~ 1006			0.5	-	0.8	
Transition Frequency	RN1001 ~ 1006	f _T	V _{CE} =10V, I _C =5mA	-	250	-	MHz
Collector Output Capacitance	RN1001 ~ 1006	C _{ob}	V _{CB} =10V, I _E =0 f=1MHz	-	3	6	pF
Input Resistor	RN1001	R _I		3.29	4.7	6.11	kΩ
	RN1002			7	10	13	
	RN1003			15.4	22	28.6	
	RN1004			32.9	47	61.1	
	RN1005			1.54	2.2	2.86	
	RN1006			3.29	4.7	6.11	
Resistor Ratio	RN1001 ~ 1004	R _{1/R2}		0.9	1.0	1.1	-
	RN1005			0.0421	0.0468	0.0515	
	RN1006			0.09	0.1	0.11	

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