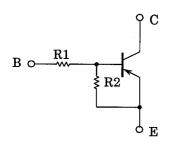
TOSHIBA Transistor Silicon PNP Epitaxial Type (PCT Process)

RN2001,RN2002,RN2003 RN2004,RN2005,RN2006

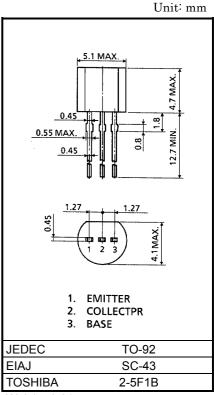
Switching, Inverter Circuit, Interface Circuit And Driver Circuit Applications

- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- Complementary to RN1001~RN1006

Equivalent Circuit and Bias Resister Values



Type No.	R1 (kΩ)	R2 (kΩ)
RN2001	4.7	4.7
RN2002	10	10
RN2003	22	22
RN2004	47	47
RN2005	2.2	47
RN2006	4.7	47



Weight: 0.21g

Maximum Ratings (Ta = 25°C)

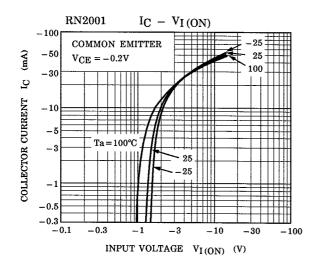
Characteristic		Symbol	Rating	Unit	
Collector-base voltage	RN2001~2006	V_{CBO}	-50	V	
Collector-emitter voltage	1(142001-2000	V _{CEO}	-50	V	
Emitter-base voltage	RN2001~2004	V _{EBO}	-10	V	
	RN2005, 2006	V EBO	-5		
Collector current	RN2001~2006	I _C	-100	mA	
Collector power dissipation		PC	400	mW	
Junction temperature	RN2001~2000	Tj	150	°C	
Storage temperature range		T _{stg}	-55~150	°C	

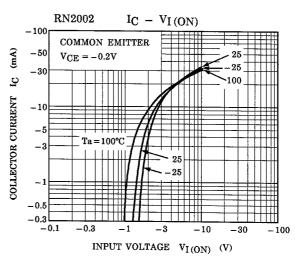


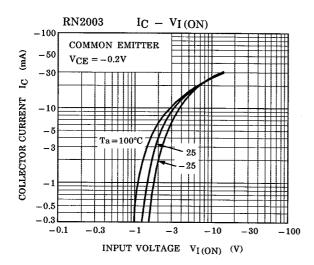
Electrical Characteristics (Ta = 25°C)

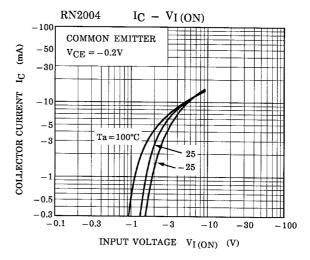
Character	ristic	Symbol	Test Circuit	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	RN2001~2006	I _{CBO}		$V_{CB} = -50V, I_E = 0$	_	_	-100	~ ^
	RN2001~2000	I _{CEO}	_	V _{CE} = -50V, I _B = 0	_	_	-500	nA
Emitter cut-off current	RN2001	I _{EBO}		V _{EB} = -10V, I _C = 0	-0.82	_	-1.52	mA
	RN2002		_		-0.38	_	-0.71	
	RN2003				-0.17	_	-0.33	
	RN2004				-0.082	_	-0.15	
	RN2005			V - 5V I - 0	-0.078	_	-0.145	
	RN2006			$V_{EB} = -5V, I_C = 0$	-0.074	_	-0.138	
DC current gain	RN2001				30	_	_	
	RN2002				50	_	_	
	RN2003	h		V _{CE} = -5V, I _C = -10mA	70	_	_	
	RN2004	h _{FE}		I _C = -10mA	80	_	_	
	RN2005				80	_	_	
	RN2006				80	_	_	
Collector-emitter saturation voltage	RN2001~2006	V _{CE (sat)}	_	$I_C = -5mA$, $I_B = -0.25mA$	_	-0.1	-0.3	٧
	RN2001	V _I (ON)		V _{CE} = -0.2V, I _C = -5mA	-1.1	_	-2.0	V
Input voltage (ON)	RN2002				-1.2	_	-2.4	
	RN2003				-1.3	_	-3.0	
	RN2004		_		-1.5	_	-5.0	
	RN2005				-0.6	_	-1.1	
	RN2006				-0.7	_	-1.3	
Input voltage (OFF)	RN2001~2004	V _{I (OFF)}		V _{CE} = -5V, I _C = -0.1mA	-1.0	_	-1.5	V
	RN2005, 2006		_		-0.5	_	-0.8	
Transition frequency	RN2001~2006	f _T	_	V _{CE} = -10V, I _C = -5mA	_	200	_	MHz
Collector Output capacitance	RN2001~2006	C _{ob}	_	V _{CB} = -10V, I _E = 0, f = 1MHz	_	3	6	pF
Input resistor	RN2001	R1			3.29	4.7	6.11	kΩ
	RN2002		_		7	10	13	
	RN2003				15.4	22	28.6	
	RN2004				32.9	47	61.1	
	RN2005				1.54	2.2	2.86	
	RN2006				3.29	4.7	6.11	
Resistor ratio	RN2001~2004				0.9	1.0	1.1	
	RN2005	R1/R2	-		0.0421	0.0468	0.0515	
	RN2006				0.09	0.1	0.11	

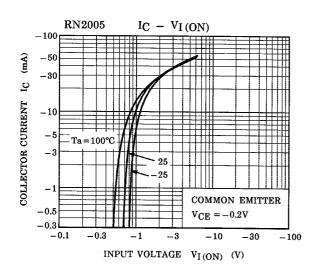
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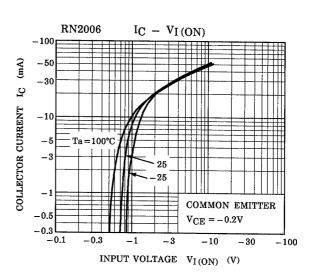




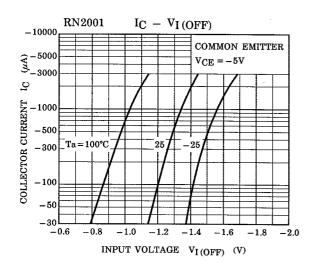


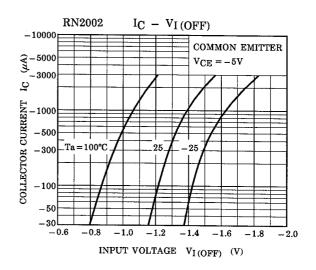


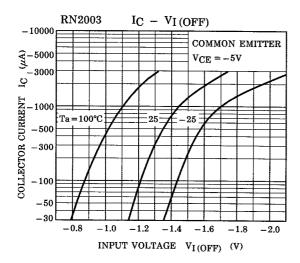


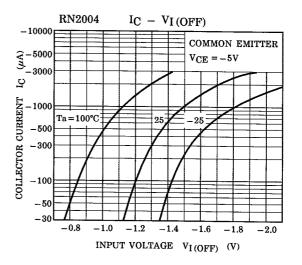


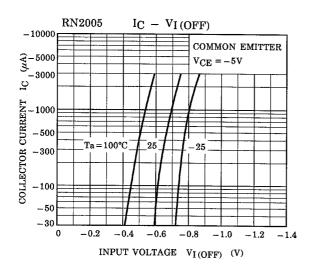
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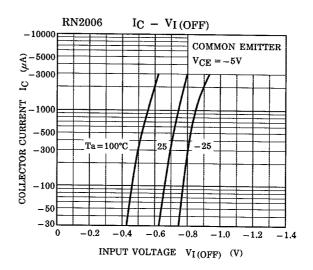


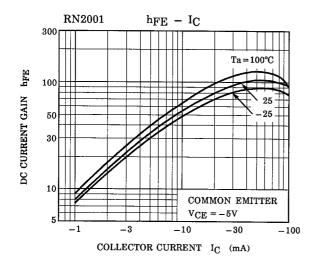


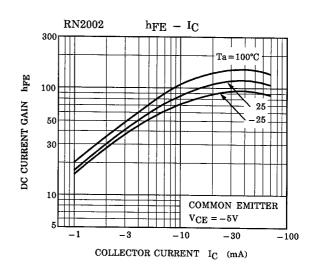


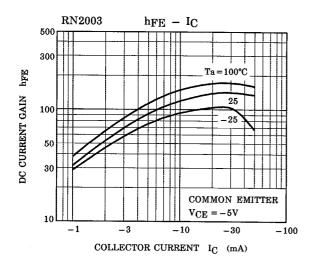


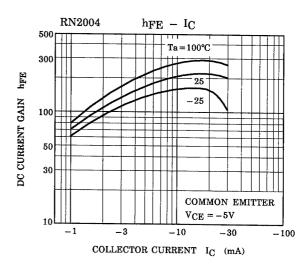


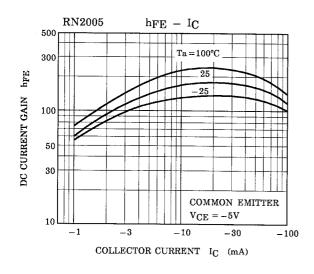


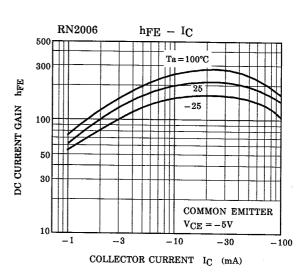












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