

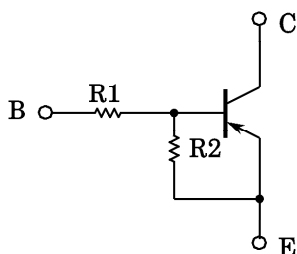
TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

RN2007, RN2008, RN2009

SWITCHING, INVERTER CIRCUIT, INTERFACE CIRCUIT AND DRIVER
CIRCUIT APPLICATIONS

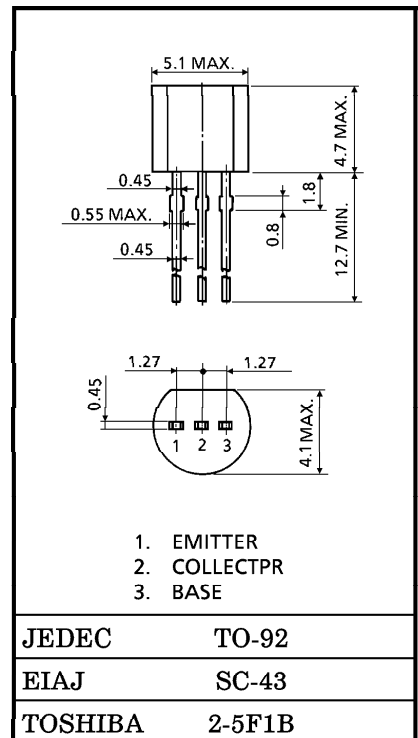
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- Complementary to RN1007~RN1009

EQUIVALENT CIRCUIT AND BIAS RESISTOR VALUES



TYPE No.	R1 (kΩ)	R2 (kΩ)
RN2007	10	47
RN2008	22	47
RN2009	47	22

Unit in mm



Weight : 0.21g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CB0}	-50	V
Collector-Emitter Voltage	V _{CE0}	-50	V
Emitter-Base Voltage	V _{EB0}	-6	V
		-7	
		-15	
Collector Current	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

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-off Current		ICBO	V _{CB} = -50V, I _E = 0	—	—	-100	nA	
		ICEO	V _{CE} = -50V, I _B = 0	—	—	-500		
Emitter Cut-off Current	RN2007	I _{EBO}	V _{EB} = -6V, I _C = 0	-0.081	—	-0.15	mA	
	RN2008			V _{EB} = -7V, I _C = 0	-0.078	—		-0.145
	RN2009			V _{EB} = -15V, I _C = 0	-0.167	—		-0.311
DC Current Gain	RN2007	h _{FE}	V _{CE} = -5V, I _C = -10mA	80	—	—		
	RN2008			80	—	—		
	RN2009			70	—	—		
Collector-Emitter Saturation Voltage		V _{CE (sat)}	I _C = -5mA, I _B = -0.25mA	—	-0.1	-0.3	V	
Input Voltage (ON)	RN2007	V _{I (ON)}	V _{CE} = -0.2V, I _C = -5mA	-0.7	—	-1.8	V	
	RN2008			-1.0	—	-2.6		
	RN2009			-2.2	—	-5.8		
Input Voltage (OFF)	RN2007	V _{I (OFF)}	V _{CE} = -5V, I _C = -0.1mA	-0.5	—	-1.0	V	
	RN2008			-0.6	—	-1.16		
	RN2009			-1.5	—	-2.6		
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	RN2007	R1		7	10	13	kΩ	
	RN2008			15.4	22	28.6		
	RN2009			32.9	47	61.1		
Resistor Ratio	RN2007	R1 / R2		0.191	0.213	0.232		
	RN2008			0.421	0.468	0.515		
	RN2009			1.92	2.14	2.35		

