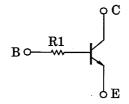
TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT Process)

RN1241,RN1242,RN1243,RN1244

For Muting and Switching Applications

- High emitter-base voltage
 - $: V_{EBO} = 25v \text{ (min)}$
- High reverse hfe
 - : reverse $h_{FE} = 150$ (typ.) ($V_{CE} = -2V$, $I_{C} = -4ma$)
- Low on resistance
 - $: R_{ON} = 1\Omega \text{ (typ.) (IB} = 5\text{mA)}$
- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process

Equivalent Circuit



Weight: 0.13g

Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V _{CBO}	50	V
Collector-emitter voltage	V _{CEO}	20	V
Emitter-base voltage	V _{EBO}	25	V
Collector current	I _c	300	mA
Collector power dissipation	Pc	300	mW
Junction temperature	Tj	150	°C
Storage temperature range	T _{stg}	-55~150	°C



Electrical Characteristics (Ta = 25°C)

Characteristic		Symbol	Test Circuit	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current		I _{CBO}	_	V _{CB} = 50V, I _E = 0	_	_	0.1	μA
Emitter cut-off current		I _{EBO}	_	V _{EB} = 25V, I _C = 0	_	_	0.1	μA
DC current gain		h _{FE} (Note)	_	V _{CE} = 2V, I _C = 4mA	200	_	1200	_
Collector-emitter saturation voltage		V _{CE} (sat)	_	I _C = 30mA, I _B = 3mA	_	_	0.1	V
Translation frequency		f _T	_	V_{CE} = 6V, I_{C} = 4mA	_	30	_	MHz
Collector output capacitance		C _{ob}	_	V _{CB} = 10V, I _E = 0, f = 1MHz	-	4.8	_	pF
Input resistor	RN1241	- R1	_	_	3.9	5.6	7.3	kΩ
	RN1242		_		7	10	13	
	RN1243		_		15.4	22	28.6	
	RN1244		_		1.54	2.2	2.86	

Note: hEE Classification A: 200~700 B: 350~1200

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