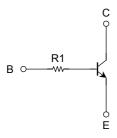
TOSHIBA Transistor Silicon NPN Epitaxial Type (PCT process) (Bias Resistor built-in Transistor)

RN1544

For use in Muting and Switching Applications.

- Emitter-base voltage is high: $V_{EBO} = 25 \text{ V (max)}$
- Incorporating a bias resistor into a transistor reduces parts count.
 Reducing the parts count enable the manufacture of ever more compact equipment and save assembly cost.

Equivalent Circuit



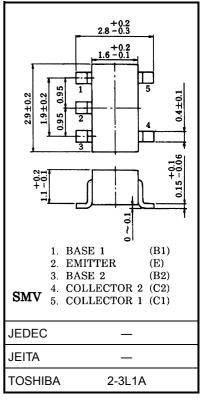
h _{FE} classification	А	В
Marking	44A	44B

Maximum Ratings (Ta = 25°C) (Q1, Q2 common)

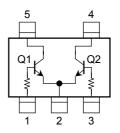
Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V _{EBO}	25	V
Collector current	Ic	300	mA
Collector power dissipation	P _C (Note1)	300	mW
Junction temperature	Tj	150	°C
Storage temperature range	T _{stg}	−55~150	°C

Note1: Total rating

Unit: mm



Weight: g (typ.)



Equivalent Circuit (top view)

Electrical Characteristics (Ta = 25°C) (Q1, Q2 common)

Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Collector cut-off current	I _{CBO}	$V_{CB} = 50 \text{ V}, I_{E} = 0$	_	_	100	nA
Emitter cut-off current	I _{EBO}	$V_{EB} = 25 \text{ V}, I_{C} = 0$	_		100	nA
DC current gain	h _{FE} (Note2)	$V_{CE} = 2 \text{ V}, I_C = 4 \text{ mA}$	200		1200	
Collector-emitter saturation voltage	V _{CE} (sat)	I _C = 10 mA, I _B = 1 mA	_	_	0.1	V
Transition frequency	f _T	$V_{CE} = 6 \text{ V}, I_{C} = 4 \text{ mA}$	_	30	_	MHz
Collector output capacitance	C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz	_	_	7	pF
Input resistor	R1	_	1.54	2.2	2.86	kΩ

Note2: hFE classification A: 200~700, B: 350~1200

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